



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX – PACIFIC SOUTHWEST REGION
75 Hawthorne Street
San Francisco, CA 94105-3901

Mr. Jay Rao
Environmental Coordinator, DCOR, LLC
290 Maple Court, Suite 290
Santa Barbara, CA 93102

RE: March 7 and March 9, 2016 Clean Water Act Inspections

Dear Mr. Rao,

Please find enclosed the National Pollution Discharge Elimination System (NPDES) inspection reports for the U.S. Environmental Protection Agency's (EPA) March 7, 2016, and March 9, 2016 inspections of Platform Hillhouse and Platform A.

Based on the information gathered during our inspections, we have identified a number of compliance concerns, which are identified in Section III of the enclosed report. To help us better understand your perspectives on these concerns, and any actions you may have taken since our inspection, please submit short responses to each of the numbered items in Section III. For clarity, please match your responses to the numbered item in the inspection report. Send your response by mail or electronic mail to:

Colby Tucker
USEPA Region 9
Enforcement Division ENF 3-1
75 Hawthorne Street
San Francisco, CA 94105
Tucker.WilliamC@epa.gov

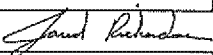
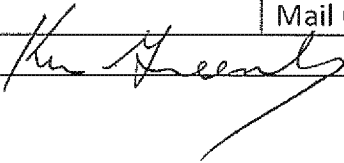
You may also contact Colby Tucker with any questions regarding the inspection at Tucker.WilliamC@epa.gov or (415) 972-3556.

Sincerely,

A handwritten signature in black ink, which appears to read "Ken Greenberg", is written over a horizontal line.

Ken Greenberg, Manager
Water Enforcement Section I

**Region 9 Enforcement Division
75 Hawthorne Street
San Francisco, CA 94105
INSPECTION REPORT**

Inspection Date(s):	03/07/2016 & 03/09/2016		Inspection Announced: Yes
Time:	Entry: 11:17 a.m.		Exit: 3:00 p.m.
Media:	Water		
Regulatory Program	CWA NPDES / Oil and Gas		
Company Name:	DCOR, LLC		
Facility or Site Name:	Platform A		
Facility/Site Physical Location:	Santa Barbara Channel		
(city, state, zip code)	Santa Barbara, CA 93102		
Geographic Coordinates:	N34 19 54.83 W119 36 48.84		
Mailing address:	290 Maple Court, Suite 290		
(city, state, zip code)	Ventura, CA 93003		
County:	Ventura County		
Facility/Site Contact:	Jay Rao		Environmental Coordinator
	jrao@dcorllc.com		
	805-535-2078		
Facility/Site Identifier:	NPDES Permit Nos. CAG280000 and CAF001156		
Facility/Site Personnel Participating in Inspection:			
Jay Rao	DCOR, LLC	Environmental Coordinator	jrao@dcorllc.com 805-535-2078
Ron Worrell	DCOR, LLC	Lead Operator	rworrell@dcorllc.com
Ray Bautista	DCOR, LLC	Foreman	rbautista@dcorllc.com
Inspector(s):			
Jared Richardson (Lead and Report Author)	PG Environmental, LLC	US EPA Contract Inspector	303-279-1778
Signature: 	Date: 04/06/2016		
Colby Tucker	US EPA Region 9 Mail Code ENF-3-1	Environmental Protection Specialist	415-972-3556
Supervisor Review:			
Ken Greenberg	US EPA Region 9 Mail Code ENF-3-1	Manager, Enforcement Division, Water Section	415-972-3577
Signature: 	Date: 7/18/16		

SECTION I – INTRODUCTION

Purpose of the Inspection

On March 7, 2016, and March 9, 2016, Jared Richardson from PG Environmental, LLC, a U.S. Environmental Protection Agency (EPA) Contract Inspector, and Colby Tucker from the U.S. EPA Region 9 Enforcement Program (hereafter, we) conducted a Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) inspection of the DCOR, LLC (DCOR or Discharger) – Platform A (hereafter, Facility) offshore oil and gas platform. The purpose of the inspection was to evaluate compliance with the requirements of the EPA Region 9 NPDES Permit Nos. CAG280000 and CAF001156. During the inspection we evaluated the accuracy and reliability of the Discharger's self-monitoring and reporting program and the Facility onsite generated waste streams, treatment processes, and discharges to the Pacific Ocean. The announced inspection consisted of two parts: a records review (conducted onshore on March 7, 2016) and a general Facility walk through (conducted offshore on March 9, 2016). The primary onsite Facility representative was Jay Rao (Environmental Coordinator, DCOR).

Opening Conference

Upon arriving at the Discharger's onshore office for a records review at 7:50 a.m. on March 7, 2016, we met with the primary Facility representative, Jay Rao (Environmental Coordinator, DCOR). We introduced ourselves and I presented my credential to the Environmental Coordinator and explained the purpose of the inspection.

Upon arriving at the Discharger's offshore Facility at 11:17 a.m. on March 9, 2016, we met with the Environmental Coordinator, the Facility lead operator Ron Worrell (platform A, DCOR), and the Facility foreman Ray Bautista (platform A, DCOR) (hereinafter, Facility representatives). We introduced ourselves and I presented my credential to the Facility representatives and explained the purpose of the inspection.

Facility/Site Description

The Platform A is located approximately 5.8 miles offshore in the Santa Barbara channel on the Outer Continental Shelf (OCS) just southeast of Santa Barbara, California (refer to Google Earth Image A below and Photograph 1). The Platform A was installed on September 14, 1968, and began production on March 3, 1969. It is located in the Dos Cuadras Field on federal lease OCS-P-0241 and is situated in 188 feet of water. In 1997 Nuevo took over the operations of the platform from Unocal. In 2004 Nuevo was acquired by Plains Exploration and Production (Plains), who took over operation of the platform. Plains only ran the platform for a little more

than four months and then sold the operation to DCOR in March 2005. Since DCOR took over operational control of the Dos Cuadras field including Platform A.

At the time of the inspection, the Facility was in “production” operations, actively recovering hydrocarbons from the field formation. The Platform A has a total of approximately 57 well slots. According to Mr. Worrell at the time of the inspection, the Facility has 25 active producing wells, 9 inactive wells, and 7 produced water reinjection (waterflood) wells. Mr. Worrell stated that active drilling for new wells has not occurred on the platform since DCOR acquired operational control in 2009.

Mr. Rao stated that at the time of the inspection, the following NPDES discharges occur or may occur from the Facility:

- Produced Water (Discharge 002)
- Deck Drainage (Discharge 004)
- Fire Control System Water (Discharge 008)
- Sanitary and Domestic Wastes (Discharge 005)
- Desalination Unit Wastes (Discharge 007)
- Non-contact Cooling Water (Discharge 009)

Note the discharge number (i.e., Discharge 002) referenced throughout this report refers to the type of wastewater discharged at the corresponding outfall point as designated in the Permit.

A general description of the process train(s) for each of the above mentioned discharges is described below:

Produced water (Discharge 002) is water (brine) associated with the extraction of oil and gas from the hydrocarbon-bearing strata which may include formation water, injection water, oil emulsions, and any chemicals added downhole or during the oil/water separation process. Produced water and oil and gas is routed to two two-phase production separators (Gross Oil Separator #1 and Gross Oil Separator #2) (refer to Photograph 3). At the time of the inspection, both production separators were in use. The produced water then is routed to a Free Water Knock Out (FWKO) vessel that was in use during the inspection. From the FWKO vessel, chemical additives are added to the produced water prior to treatment in a WEMCO oil and water separator (refer to Photograph 4). Following the WEMCOs, produced water is then discharged to the Pacific Ocean via a 60 foot submerged outfall. The Discharger provided a process flow diagram of the produced water oil/water conveyance and treatment system (refer to Exhibits 1 and 2).

Deck drainage (washdown, rainwater, drip pan and work area drains – Discharge 004) and fire control system water (seawater released during training, testing, and maintenance of fire protection equipment – Discharge 008) are “commingled” and collected in a waste oil tank (refer to Photograph 2). The commingled wastewater is pumped via waste oil pumps to DCOR’s onshore Rincon treatment facility.

Sanitary (black water) wastewater is treated onsite at the Facility with a redFox® environmental marine sanitation device (MSD) Fox Pac Model No. RF-500-FP, Serial No. 4873, which is United States Coast Guard (USCG) approved (refer to Photograph 5). The treated water is then combined with domestic (grey water) wastewater and discharged (Discharge 005) to the Pacific Ocean via a 2 to 3 inch drain (refer to Photograph 6). As shown in Photograph 6, the black water and grey water wastewater (Discharge 005) was observed actively flowing at the time of the inspection. The onsite Facility representatives stated that the black water flow rate is estimated based on 50 gallons per day per person on the platform. The MSD unit is sized for a maximum of 500 gallons per day (gpd). The Facility was staffed with 5 people at the time of the inspection.

Desalination (i.e., reverse osmosis) unit wastewater (Discharge 007) is generated during the process of creating freshwater from saltwater. The desalination unit and waste stream discharge location were not viewed as a component of the inspection. According to onsite Facility representatives, the desalination unit only provides water to sinks and showers at the Facility. At the time of the inspection, the desalination unit was in standby mode. Facility representatives stated that it had not been used in quite some time. The electronic Discharge Monitoring Reports (eDMRs) we reviewed during the inspection did not indicate any desalination unit discharges during the period of review (March 2014 through March 2016).

Non-contact cooling water (Discharge 009) circulates through machinery for the purpose of cooling. Non-contact cooling water is utilized by the Facility for reducing gas temperatures in the Facility heat exchangers. The non-contact cooling water discharge location was not evaluated as a component of this inspection. The onsite Facility representatives stated that non-contact cooling water had not been discharged for several years. The eDMRs we reviewed during the inspection did not indicate any non-contact cooling water discharges during the period of review (March 2014 through March 2016).



Image A: Google Earth image of Facility

SECTION II – OBSERVATIONS

Following the opening conference at the onshore Facility with Mr. Rao (Environmental Coordinator, DCOR) on March 7, 2016, we reviewed records requested prior to the inspection that were to be available onsite (refer to Exhibit 3). The general period of review was from March 2014 through March 2016. We reviewed eDMRs for the period as a component of this inspection. The review included a spot check comparison of reported monitoring results versus requirements and limitations in the Permit. No permit limit exceedances were identified during our document review. We also compared select monitoring results reported in the eDMRs to the contract analytical laboratory reports. We did not review previous inspection reports as a component of the inspection. In addition, we discussed scope, logistics, and health and safety items in preparation for the offshore Platform A inspection that was to be conducted on March 9, 2015.

On March 9, 2016 at 11:17 a.m. we arrived at the offshore Facility via boat transport from shore. We met with the Environmental Coordinator and the Facility's lead operator Mr. Worrell. We introduced ourselves and I presented my credential to the Facility representatives and I explained the purpose and scope of the inspection. Mr. Worrell, Mr. Rao, and Mr. Bautista (Facility foreman, DCOR) then escorted us on a Facility walk through. We visually evaluated the produced water and black water treatment trains and general Facility site conditions during the walk through.

We observed the Facility redFox® MSD used to treat sanitary (black water) wastes (Discharge 005) prior to being discharged to the Pacific Ocean (Discharge 005) (refer to Photographs 5 and 6). The redFox® MSD unit was stamped with a manufacture date of June 29, 2009.

During the Facility walk through, we observed the Facility produced water treatment train. The Discharger's produced water (Discharge 002) NPDES sampling point is located at the discharge pipe off of the WEMCO. We viewed this discharge pipe as a component of the inspection (refer to Photographs 10, 11, and 12). Based on our observations during the inspection, the produced water NPDES oil and grease sample location appeared to provide representative samples; however, we observed a bypass line around the NPDES sample point during the inspection (refer to Photographs 13 and 14). We observed that the produced water NPDES sample point bypass piping was not in operation during the inspection, as indicated by the closed valve (refer to Photograph 14). The receiving water (Pacific Ocean) within the vicinity of the produced water discharge pipe was viewed and observed to be free of visually objectionable characteristics at the time of the inspection (refer to Photograph 15).

We observed the Facility's on-line oil and grease monitor, which was installed in accordance with Part II.G.6, On-Line Oil and Grease Monitors, requirements of the Permit. The Discharger conducts additional internal process monitoring for oil and grease in produced water after the WEMCO on the discharge pipe via continuous inline turbidity measurement utilizing a HACH Surface Scatter® 7 sc turbidimeter (refer to Photographs 14 and 16). At the time of the inspection, we observed the continuous inline turbidity measurement of produced water to be 2.58 nephelometric turbidity units (NTUs). The Facility representatives stated that there is an alarm (visual and audible) that activates when the inline turbidity monitor exceeds 15 NTU and 20 NTU. The Facility representatives stated that these set points were to ensure the produced water (Discharge 002) did not exceed the monthly average and daily maximum oil and grease Permit effluent limits of 29 mg/L and 42 mg/L, respectively. The Facility representatives said the set points were developed based on facility-specific correlation between the turbidity monitor and oil and grease measurements.

We observed the waste oil tank (refer to Photograph 2), which receives "commingled" deck drainage and fire control system wastewater prior to being pumped via waste oil pumps to DCOR's onshore Rincon treatment facility.

We observed an actively leaking domestic (greywater) piping discharging to the receiving water (Pacific Ocean) at the time of the inspection (refer to Photographs 17 through 20). Facility

representatives stated that the greywater piping leak appeared to be originating from the galley drain system.

As part of the Facility walk through, we reviewed the Facility operations and maintenance procedures including processes for scheduling and documenting maintenance activities, the current backlog, and standard operating procedures (SOPs). Facility representatives stated that the Facility utilizes the computerized maintenance management system (CMMS), MainSaver, to schedule and document maintenance activities. Facility representatives provided us with a demonstration of the CMMS at the time of the inspection.

As a component of the inspection, we requested and reviewed the Discharger's sampling and handling methods for oil and grease (refer to Exhibit 6). We observed that the SOPs did not include sampling and handling procedures to ensure that all minimum monitoring information was recorded as required by Part III.E, Records Contents, of the Permit.

SECTION III – AREAS OF CONCERN

We held a closing conference post-inspection via conference call with the Mr. Rao on March 28, 2016. During the closing conference, we reviewed the preliminary inspection observations and areas of concern. The presentation of areas of concern does not constitute a formal compliance determination or violation.

1. Part II.E, Domestic and Sanitary Wastes (Discharge 005), Footnote 2, of the Permit states "Any facility which properly operates and maintains a marine sanitation device (MSD) that was certified by the United States Coast Guard (USCG) under Section 312 of the Act shall be deemed to be in compliance with permit limitations for sanitary wastes and the requirements for total residual chlorine do not apply. The MSD shall be inspected yearly for proper operation, and the inspection results maintained with the permit records." The total and fecal coliform USCG "appropriate standards" in 40 CFR Part 140.3(d) state that "After January 30, 1980, subject to paragraphs (e) and (f) of this section, marine sanitation devices on all vessels on waters that are not subject to a prohibition of the overboard discharge of sewage, treated or untreated, as specified in paragraph (a)(1) of this section, shall be designed and operated to either retain, dispose of, or discharge sewage, and shall be certified by the U.S. Coast Guard. If the device has a discharge, the effluent shall not have a fecal coliform bacterial count of greater than 200 per 100 milliliters (i.e., 200 Most Probable Number (MPN)/100 mL), nor suspended solids greater than 150 mg/L."

Based on a review of the Discharger's 2014 and 2015 annual MSD inspection records, we observed that the MSD unit did not meet total suspended solids (TSS) and total and fecal coliform USCG "appropriate standards" for MSD effluent per 40 CFR Part 140.3(d) for samples collected on December 14, 2015 (refer to Exhibit 4). Specifically, the Discharger's contract laboratory analytical results for the MSD effluent samples collected on December 14, 2015, for TSS (220 mg/L) and total coliform (4,600 MPN/mL)/*E.coli* (380 MPN/mL) were greater than 150 mg/L and 200 MPN/mL, respectively. This total coliform analytical result was 23 times greater than the USCG appropriate standard. Refer to Exhibit 4 and Exhibit 5 that includes:

- The Discharger's 2015 MSD annual inspection report dated December 9, 2015.
- The corresponding Capco Laboratory Analytical Services laboratory analytical results, dated December 17, 2015, for the MSD effluent samples collected on December 14, 2015.

It should be noted that in response to the USCG appropriate standard exceedance of TSS, total coliform, and *E.coli* parameters, the Discharger recommended (refer to Exhibit 4 Page 2) increasing the total chlorine residual to 3 to 4 parts per million (ppm) within the MSD unit disinfection chamber. It should be noted that based on our review of the Discharger's 2014 annual Facility MSD inspection and associated contract laboratory analytical results, the Facility MSD unit did not exceed the USCG appropriate standards for TSS, total coliform/*E.coli* in 2014.

We also noted that the Discharger had not inspected the internal media bed and media chambers annually as stated in the manufacturer's specifications. We also observed in the Discharger's 2014 and 2015 annual Facility MSD inspection reports that inspections of the MSD unit's interior was not performed due to "bolted hatches" (refer to Exhibit 4 Page 2). However, the redFox® FoxPac manufacturer installation, operation, and maintenance manual obtained from redFox® post-inspection recommends that the interior media bed and media chamber be inspected and cleaned annually. It does not appear that the Discharger performed the recommended media bed and media chamber inspection and cleaning for the MSD unit in accordance with manufacturer's recommendations.

2. Part I.A.5 Requirements for NPDES Permits and Coverage Conditions – Prohibitions of the Permit states "During the term of this general permit, operators are authorized to discharge under the general permit the enumerated waste streams subject to the restrictions set forth herein. This permit does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharges of pollutants,

that are not part of the normal operation of the facility, or any pollutants that are not ordinarily present in such waste streams.” Part II.E Domestic and Sanitary Wastes (Discharge 005) of the Permit states there shall be no discharge of floating solids.

We observed that the Facility MSD unit was equipped with drain manifold and valves between the media chamber and disinfection chamber with the drain piping discharging directly to the Pacific Ocean (refer to Photographs 7, 8, and 9). At the time of the inspection all chamber drain valves were closed and no discharge was observed from the discharge piping to the Pacific Ocean. Facility representatives did not know at the time of the inspection, if any discharges ever occurred from the MSD unit media and disinfection chambers via this discharge piping.

3. Part II.E Domestic and Sanitary Wastes (Discharge 005) and Footnote 4 of the Permit states there shall be no discharge of foam or floating solids from domestic (greywater) and “The discharge of food waste is prohibited within 12 nautical miles from the nearest land.”

We observed an active domestic (greywater) piping leak discharging to the receiving water (Pacific Ocean) at the time of the inspection (refer to Photographs 17 through 20). As a result of the leak, not all greywater was being discharge at the designated discharge location (Discharge 005). Facility representatives stated that the greywater piping leak appeared to be originating from the galley drain system. During the inspection, Mr. Rao stated that they would promptly address the greywater leak and notify EPA Region 9 once completed.

4. Part III.B Monitoring, Recording and Reporting Requirements of the Permits states “Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.”

During the inspection, we observed a bypass line around the produced water NPDES oil and grease sample location (refer to Photographs 13 and 14). At the time of the inspection, the produced water NPDES sample point bypass piping was not in operation as indicated by the closed valve (refer to Photograph 14). Facility representatives were unaware of the frequency or reason for the bypass of the produced water oil and grease NPDES sample point.

5. Part IV.(e) Proper Operation and Maintenance of the Permit states that “The Permittee shall at all times properly operate and maintain all facilities and system of treatment

and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit.”

We observed that the Discharger lacked a formal, reproducible process and SOPs for scheduling and documenting maintenance activities. Facility representatives provided us with a demonstration of their CMMS MainSaver program at the time of the inspection. The Facility had a total of 40 open work orders and a total of 295 work orders at the time of the inspection. We observed that the Discharger’s CMMS was not being utilized to adequately generate and document corrective action work orders or to address immediate maintenance items for NPDES treatment units at the Facility. For example, the Discharger was not utilizing the CMMS system to generate and track potential immediate repair needs for the Facility gross oil and water separators, but rather would just complete the work without entering into the CMMS, documenting, or tracking repairs to ensure proper operation and maintenance of the process units at the Facility.

6. Part III.E Records Contents of the Permit requires that the following monitoring information be documented: “1. The date, exact place, and time of sampling or measurements; 2. The individual(s) who performed the sampling or measurements; 3. The date(s) analyses were performed; 4. The individual(s) who performed the analyses; 5. The analytical techniques or methods used; and 6. The results of such analyses.”

We observed that the Discharger’s SOPs for produced water oil and grease sampling and handling did not include minimum monitoring information requirements or requirements to ensure proper sample collection, preservation, and hold times (refer to Exhibit 6). Specifically, the Discharger SOPs did not clearly describe the exact sample location for produced water oil and grease waste stream as “Discharge 002”, or that oil and grease samples should be labeled for type of sample as “grab” or “composite”. Note that Table 6 – Produced Water Effluent Limitations and Monitoring Requirements of the Permit states that the Discharger’s oil and grease produced water sample type/method shall be either a grab sample or composite sample. Additionally, the SOPs did not include information or requirements for oil and grease sample preservation (i.e., $\leq 6^{\circ}\text{C}$ within 15 minutes of collection for grab samples) or maximum holding time (e.g., 28 days for oil and grease), as detailed in 40 CFR Part 136 and required by Part II.B.6 Produced Water Monitoring Requirements of the Permit. We further observed that the SOPs did not ensure that the sample collection method for produced water oil and grease samples would ensure that the laboratory provided sample bottle preservative of hydrochloric acid (HCl) would be maintained. For example, the Discharger’s SOP did not

provide sample collection and handling guidance on not overfilling the oil and grease sample to prevent the loss of HCl preservative.

7. Part II.C.3, Well Treatment, Completion and Workover Fluids (Discharge 003), Chemical Inventory, section of the Permit, requires "The Permittee shall maintain an inventory of the quantities and concentrations of the specific chemicals used to formulate well treatment, completion and workover fluids. If there is a discharge of these fluids, the chemical formulation, concentrations and discharge volumes of the fluids shall be submitted with the DMR. For discharges of well treatment, completion and workover fluids, the type of operation that generated the discharge fluids shall also be reported."

We observed that the Discharger did not submit with the DMRs a chemical inventory including chemical formulation and concentrations of these fluids used for well treatment, completion and workover fluids.

SECTION IV – LIST OF APPENDICES

Appendix 1 – Photograph Log (Note red text and callouts added by inspector)

Appendix 2 – Exhibit Log (Note red text and callouts added by inspector)

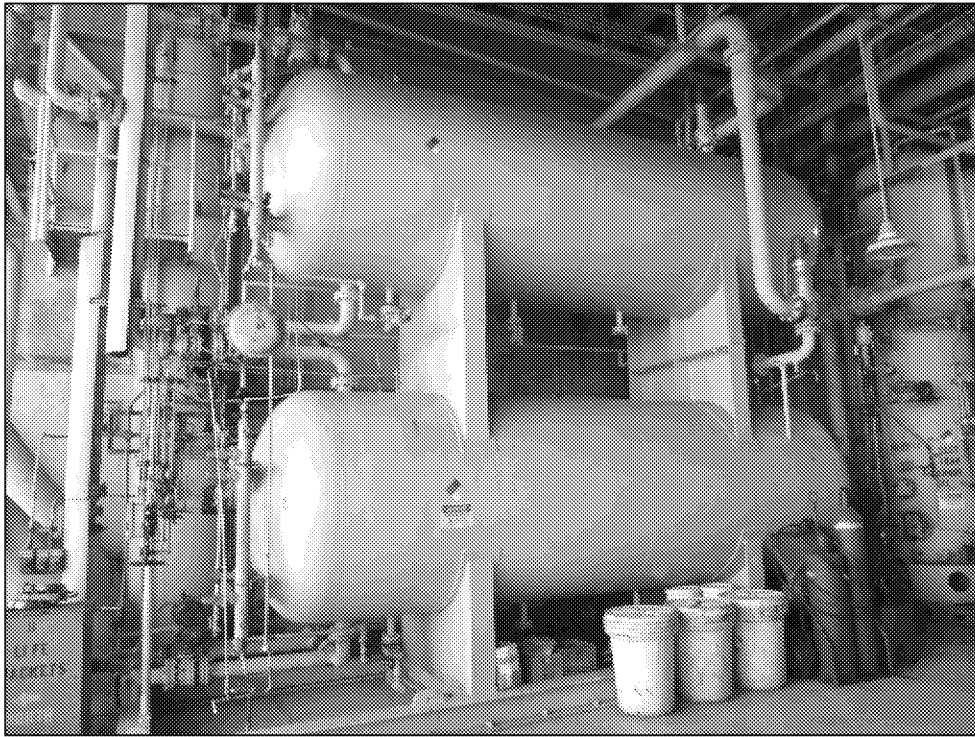
APPENDIX 1 – Photograph Log



Photograph 1. View of DCOR, LLC's offshore Platform A.



Photograph 2. View of waste oil tank utilized for collecting deck drainage and fire control system water prior to being pumped to DCOR's onshore Rincon treatment facility.



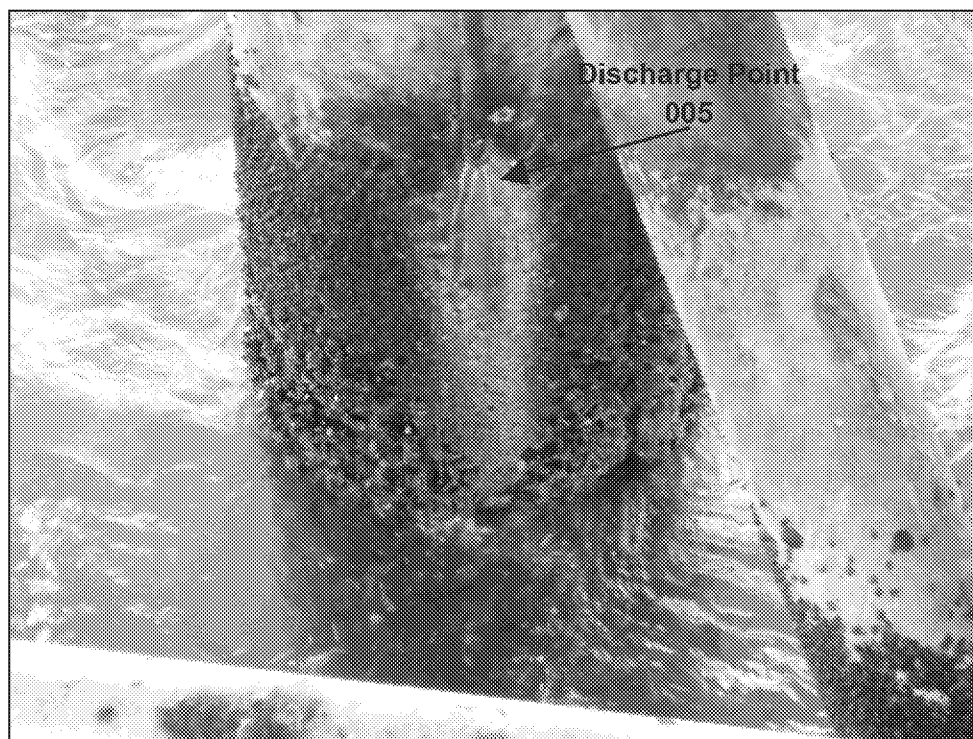
Photograph 3. View of gross oil separators #1 and #2.



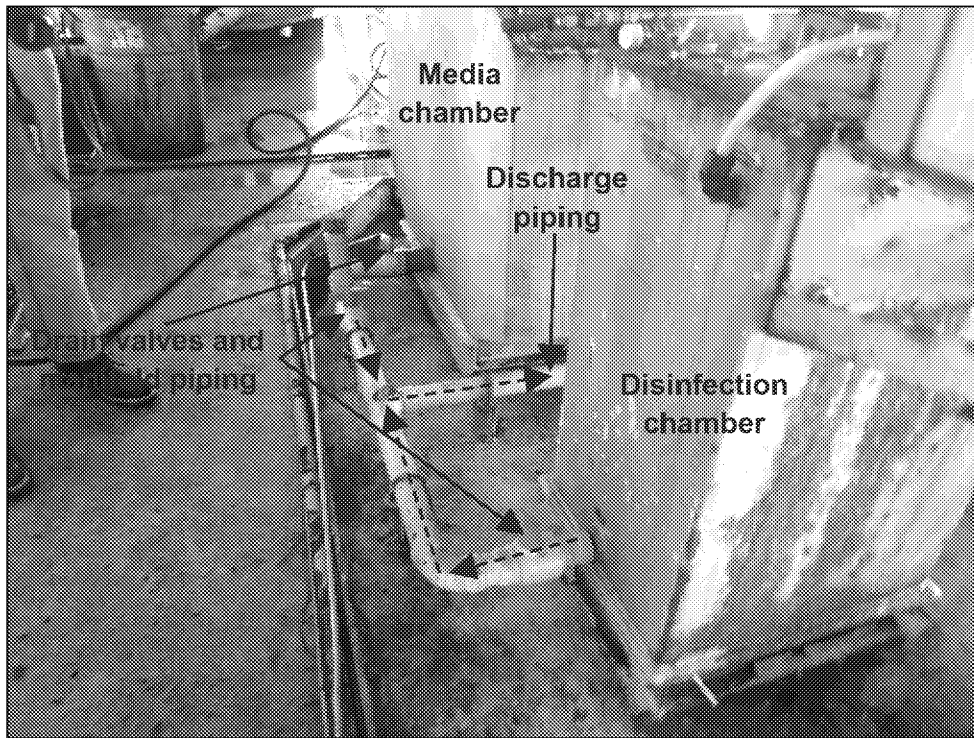
Photograph 4. View of WEMCO oil water separator at the platform.



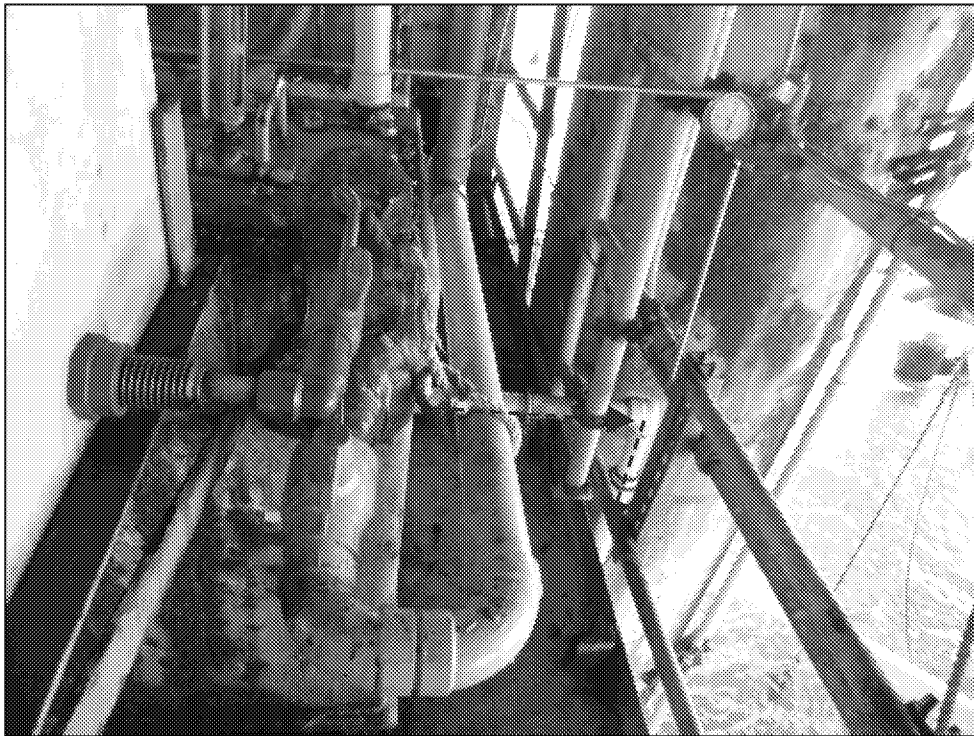
Photograph 5. View of redFox® environmental marine sanitation device Fox Pac Model No. RF-500-FP, Serial No. 4873 used to treat sanitary wastes.



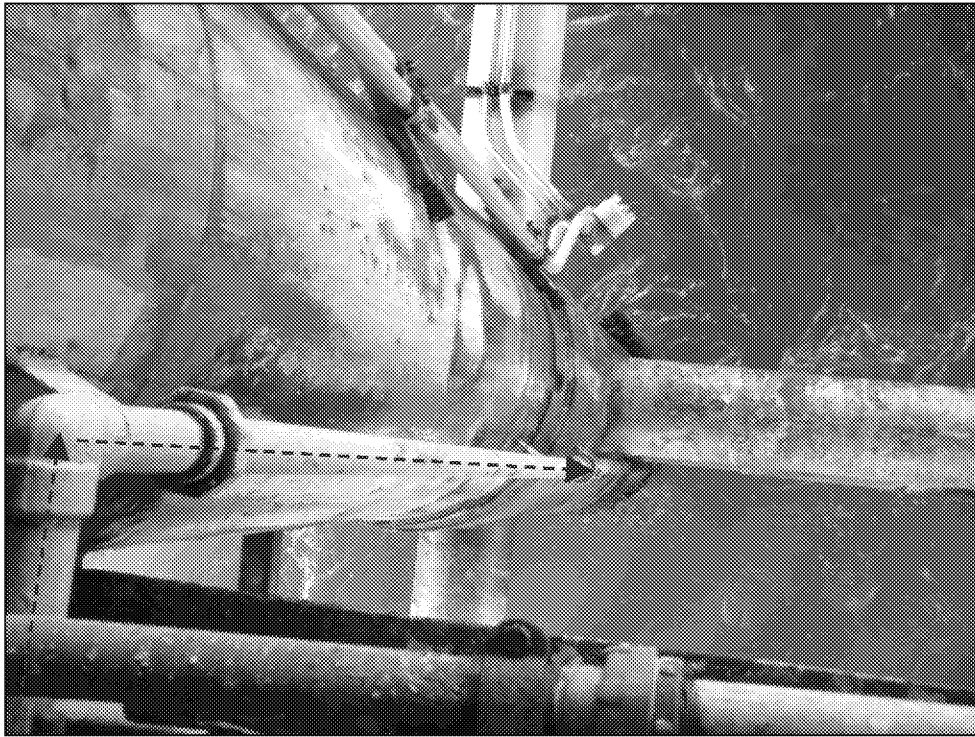
Photograph 6. View of actively flowing sanitary waste discharge point (Discharge 005) to the Pacific Ocean.



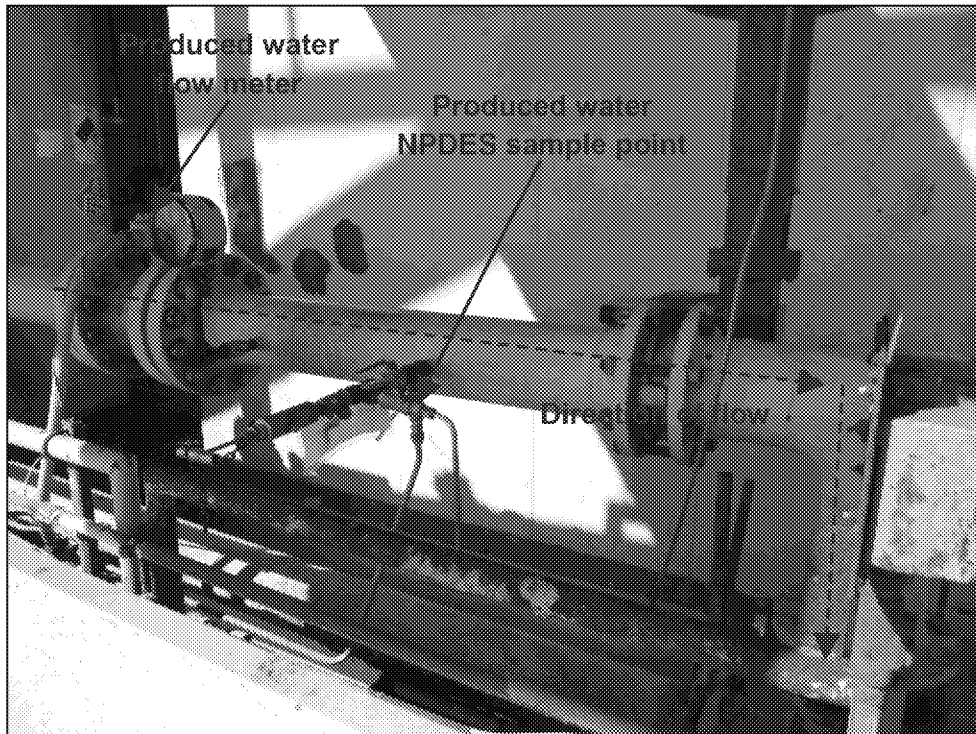
Photograph 7. View of MSD unit media chamber and disinfection chamber drain valves and manifold. Note that the drain valves were in the closed position at the time of the inspection.



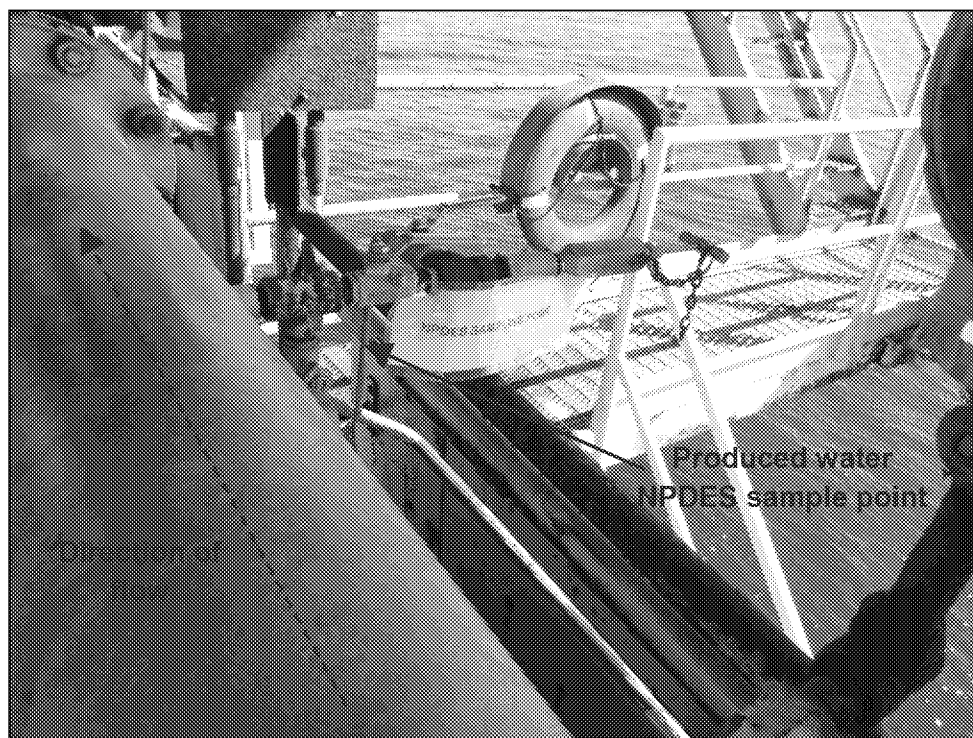
Photograph 8. View of discharge piping from the MSD unit media and disinfection chambers, shown in Photograph 7.



Photograph 9. View of discharge piping outfall to the Pacific Ocean from the MSD unit media and disinfection chambers drain manifold piping.



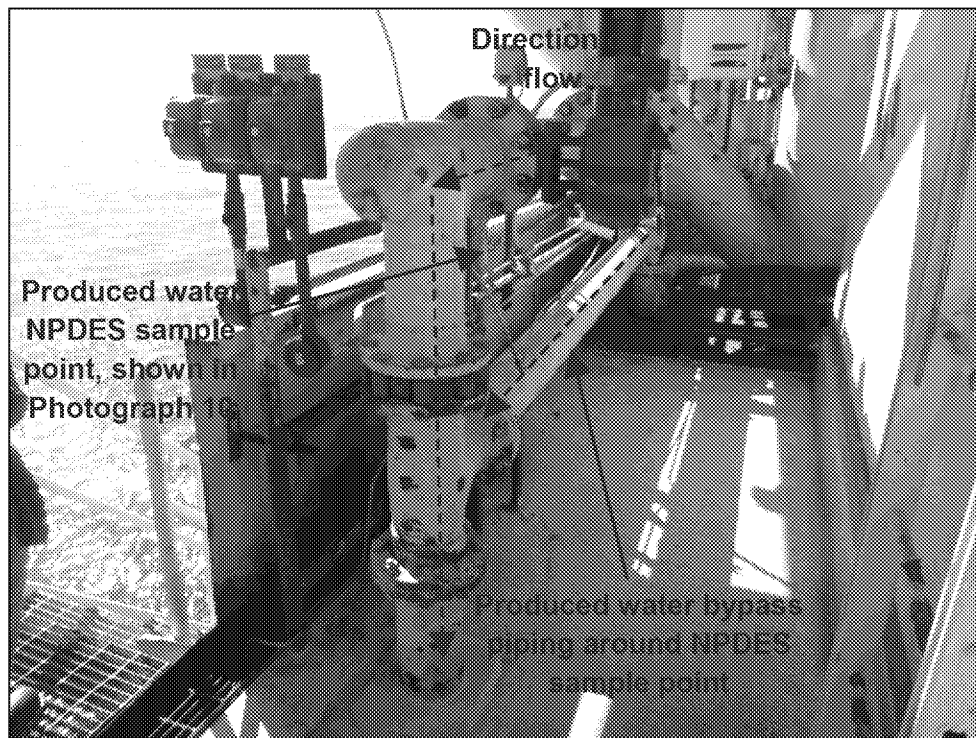
Photograph 10. View of produced water (Discharge 002) NPDES sampling point located off of the discharge pipe from the WEMCO with the produced water flow meter.



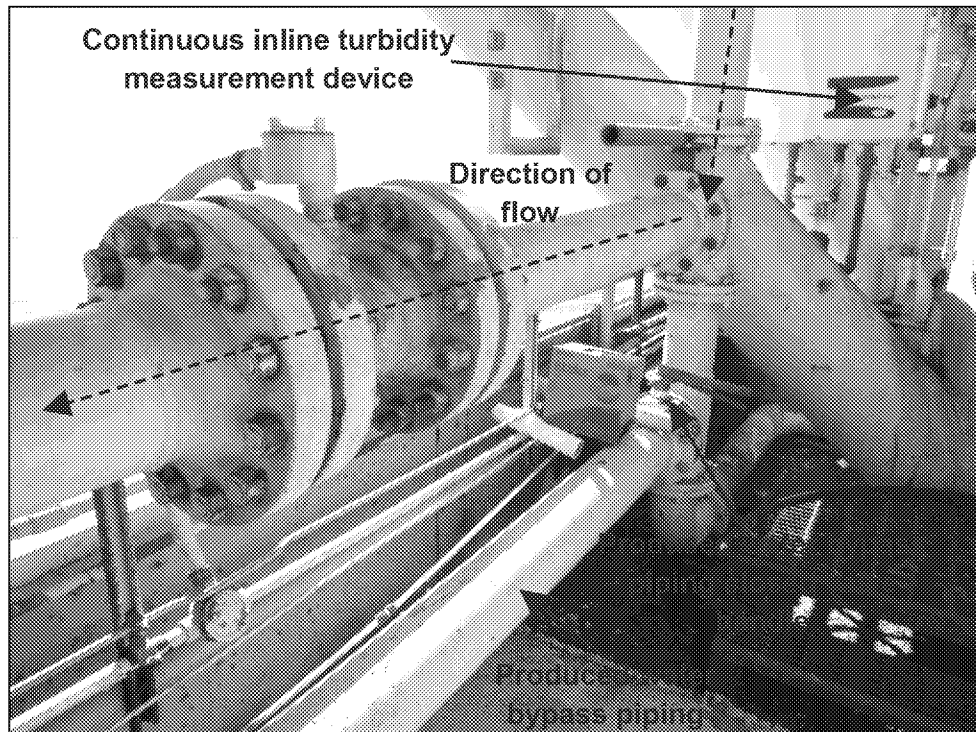
Photograph 11. Alternate view of produced water (Discharge 002) NPDES sampling point located off of the discharge pipe from the WEMCO.



Photograph 12. Close-up view of the produced water NPDES sampling point, shown in Photographs 10 and 11.



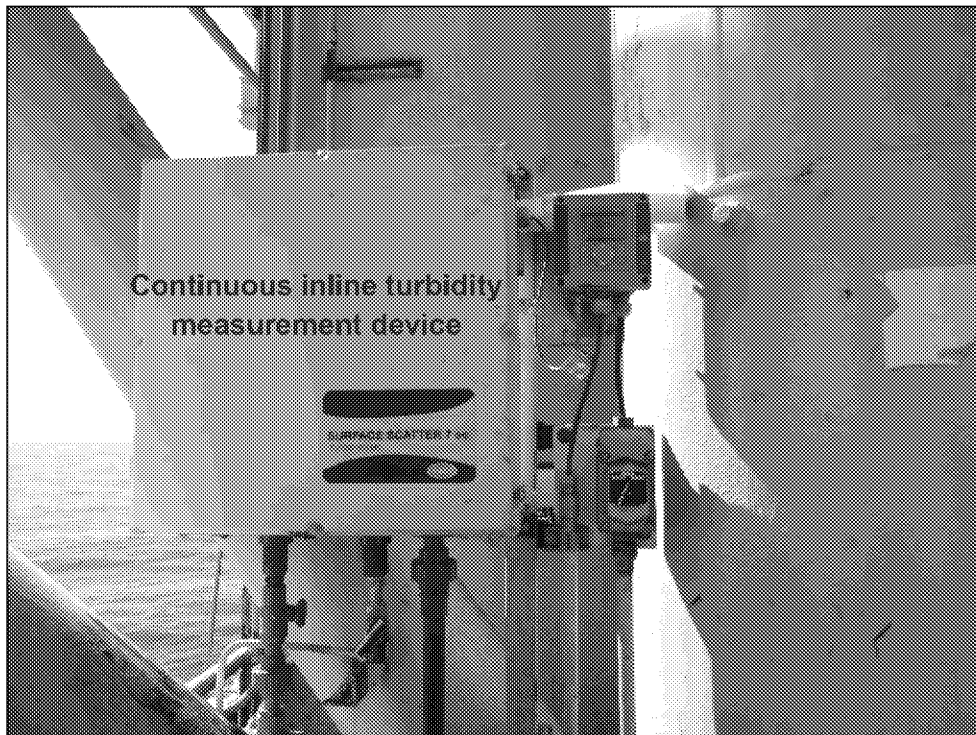
Photograph 13. View of produced water bypass piping around NPDES sample point.



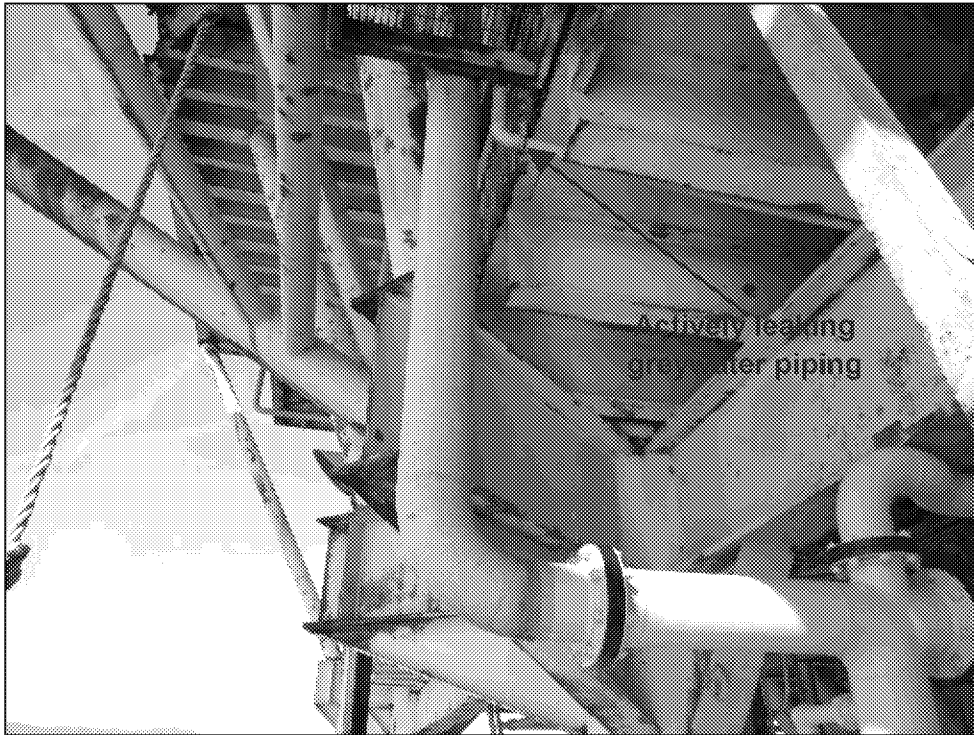
Photograph 14. Close-up view of produced water bypass piping around NPDES sample point, shown in Photographs 11. Note the bypass piping was not in operation at the time of the inspection, as indicated by the closed valve handle.



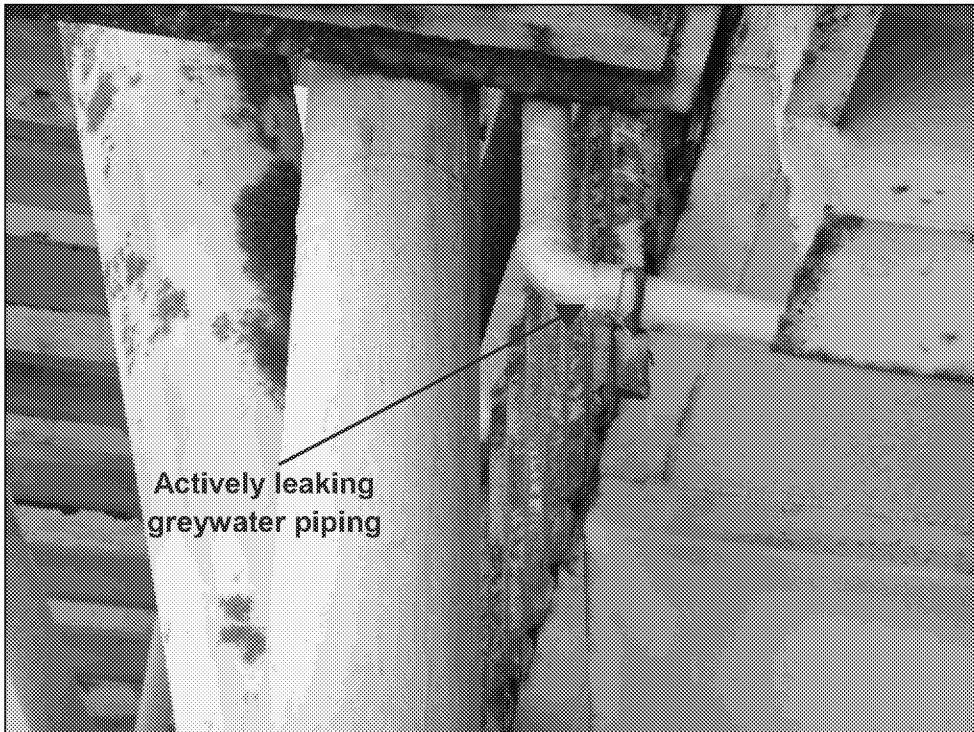
Photograph 15. View of the receiving water (Pacific Ocean) within the vicinity of Platform A NPDES produced water submerged outfall discharge pipe at the time of the inspection.



Photograph 16. Close-up view of continuous inline turbidity measurement device (shown in Photograph 14), a HACH Surface Scatter® 7 sc turbidimeter, used to comply with Part II.G.6 On-Line Oil and Grease Monitors of the Permit.



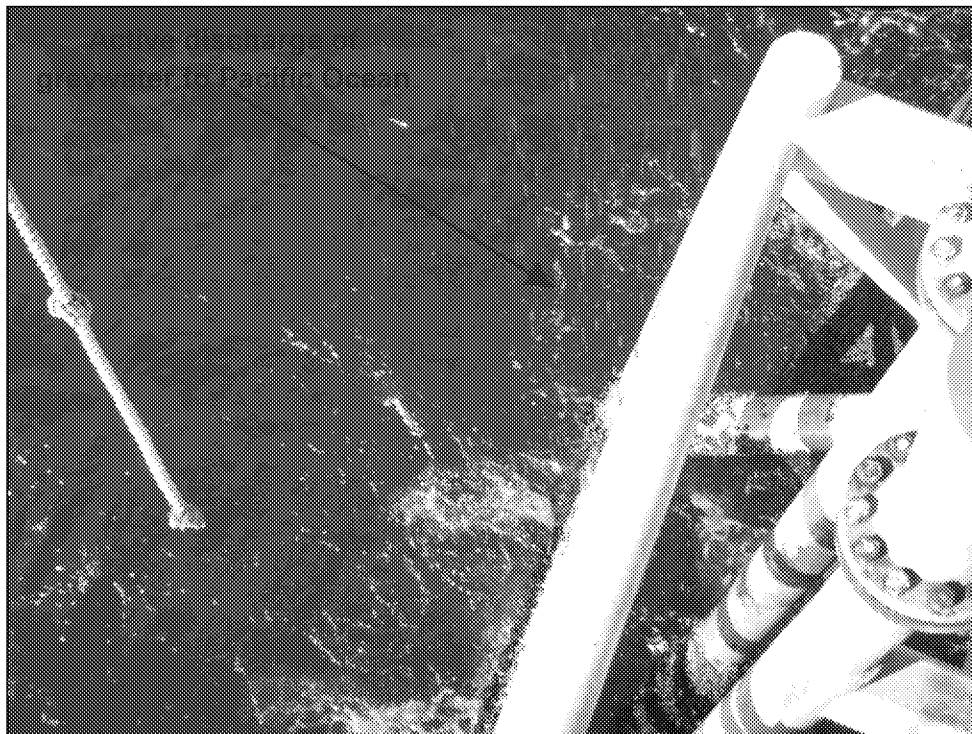
Photograph 17. View of the location of the active domestic (greywater) piping leak.



Photograph 18. Close-up view of active domestic (greywater) piping leak.



Photograph 19. Alternate view of active domestic (greywater) piping leak.



Photograph 20. View of receiving water (Pacific Ocean) in the vicinity of the active domestic (greywater) piping leak discharge. Note the droplets showering down in the photo from the greywater leak shown in Photographs 17, 18, and 19.

APPENDIX 2 – Exhibit Log

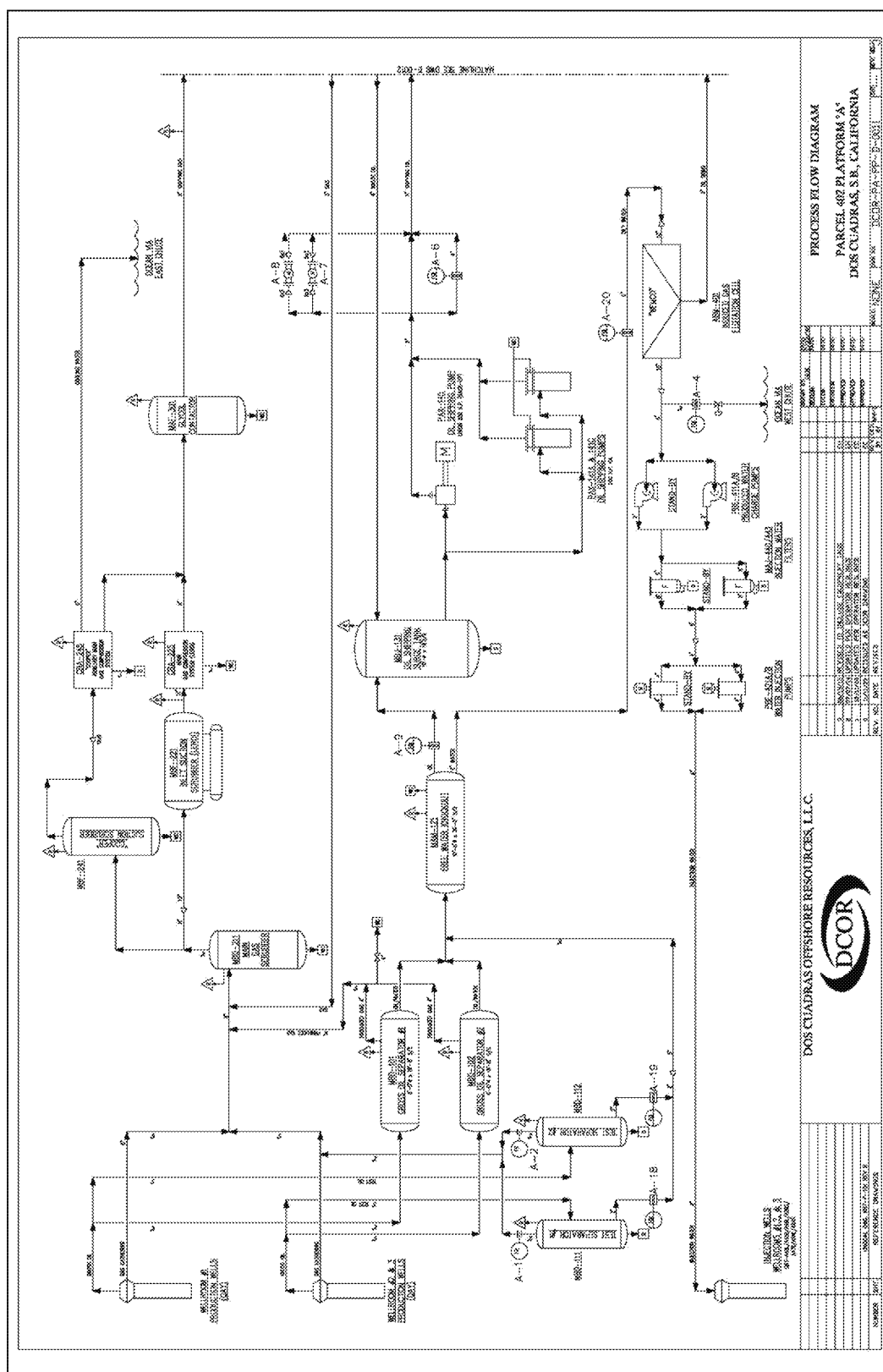


Exhibit 1. DCOR's process flow diagram of the oil/water conveyance and treatment system for Platform A.

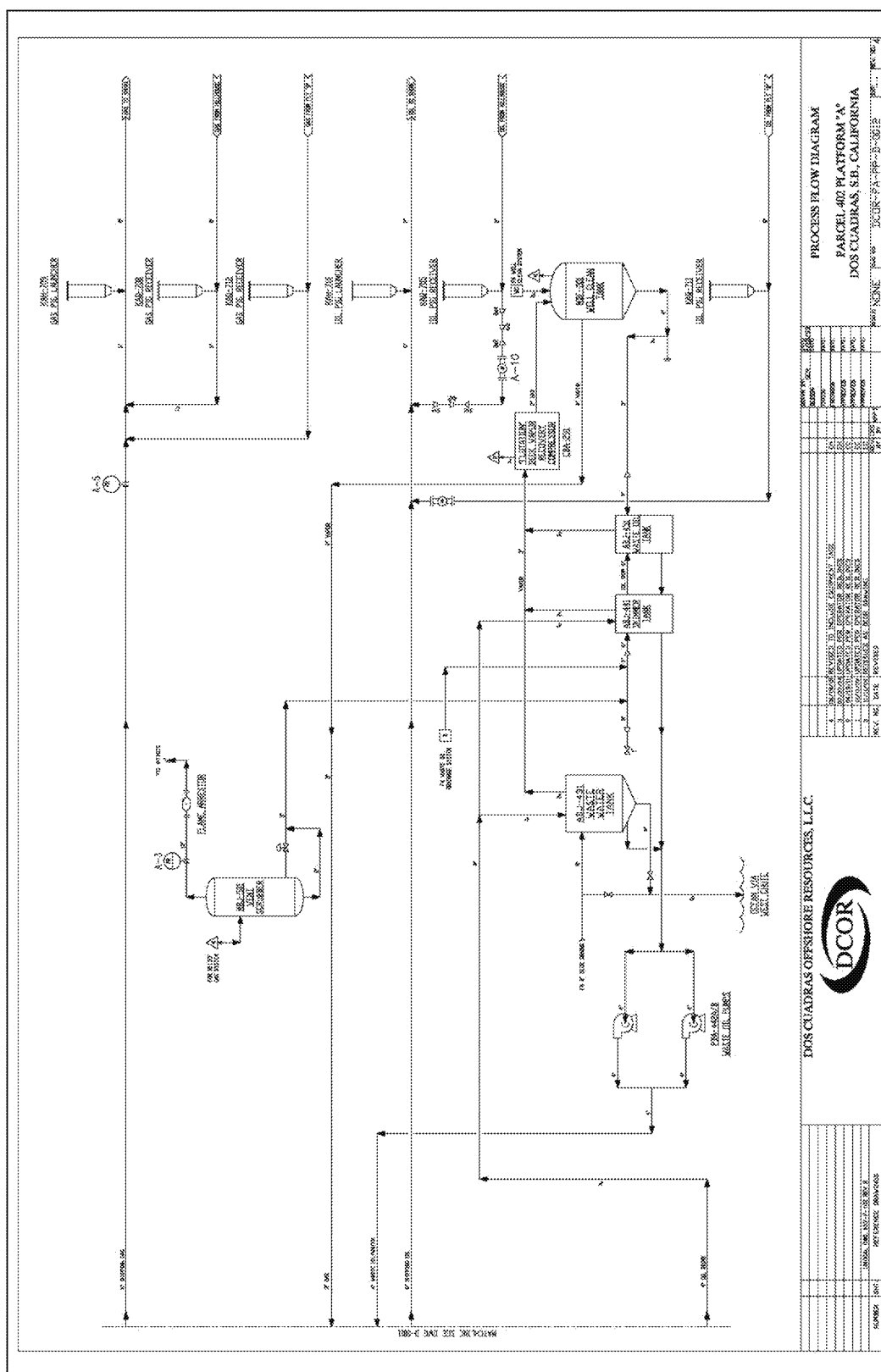


Exhibit 2. DCOR's process flow diagram of the oil/water conveyance and treatment system for Platform A.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

February 23, 2016

Jay Rao, Environmental Coordinator
290 Maple Court, Suite 290
Ventura, California 93003

Re: Notice of Inspection

DCOR, LLC – Offshore oil and gas platforms (Platform A and Platform Hillhouse)
National Pollutant Discharge Elimination System (NPDES) Permit No. CAG280000

Dear Mr. Jay Rao:

The U.S. Environmental Protection Agency (EPA) Region 9 will be conducting an inspection of DCOR, LLC offshore oil and gas platforms in the Santa Barbara Channel to assess compliance with the Discharger's Clean Water Act (CWA) NPDES permit.

EPA Region 9 has contracted with PG Environmental, LLC (PG) to conduct the inspections on behalf of EPA. Anticipate that one or more EPA Region 9 personnel and tentatively Bureau of Safety and Environmental Enforcement (BSEE) personnel will accompany PG/EPA during the inspection process.

The inspection will consist of office interviews, in-field reviews, and evaluation of overall success/effectiveness in meeting the conditions and requirements contained in the permit. The inspection is scheduled for **March 7 – 9, 2016**. An inspection agenda and general records request is attached for your reference. The agenda is a basic outline of how the inspection will be structured. The records request is merely a guide to help you prepare for the inspection. If there are other documents not on the list that you feel would help demonstrate your compliance with the permit, please have them available for review. Please do not make copies of these documents for our collection. We may identify documents or portions of documents for collection during the inspection.

Your primary points of contact for the inspection process are as follows:

EPA – Colby Tucker (415) 972-3556, tucker.williamc@epa.gov
PG – Jared Richardson (303) 279-1778 x 106, jared.richardson@pgenv.com

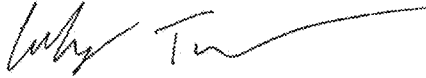
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Exhibit 3. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 1 of 5).

Page 2 of 2

Thank you for your efforts and participation in the inspection process. If you have any questions or need additional information, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Colby Tucker", with a long horizontal flourish extending to the right.

William (Colby) Tucker, Environmental Protection Specialist
ENF-3-1
U.S. Environmental Protection Agency, Region 9

cc: Jared Richardson, PG Environmental, LLC

Exhibit 3. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 2 of 5).

Compliance Evaluation Inspection – Records Request

Records Requested to be available on-site¹ for NPDES Discharge Permits:

Permit

- Current NPDES Permit Discharge Requirements:
 - Any permit amendments
 - Compliance Schedules or Time Schedule Orders (TSOs)
 - Monitoring and Reporting Program Requirements
- Stormwater Notice of Intent (NOI) and General Discharge Permit Requirements (if applicable)

Routine Reporting

- Discharge Monitoring Reports (DMRs) and/or Self Monitoring Reports (SMRs) (March 2014 – present)
- Annual Reports (latest two annual reporting periods)
- Whole Effluent Toxicity Testing (WET) and Analytical Results
- Chemical Inventories
- Compliance order status including scheduled reports, actions taken, pending items (if applicable)
- Spill records – Sewage, chemical, and otherwise

Plans

- Toxicity Identification Evaluations (TIE) or Toxicity Reduction Evaluations (TRE)
- Non-Contact Cooling Water Intake reports or studies
- Spill Prevention Control and Countermeasures (SPCC) plan (if applicable)
- Stormwater Pollution Prevention Plan (SWPPP) and applicable documentation (if applicable)

Laboratory

- Laboratory certification (ELAP) – On-site lab and contract labs
- Laboratory Quality Assurance (QA) / Quality Control (QC) Program
- Standard operating procedures (SOPs)
- Sample chain-of-custodies (COCs) and corresponding laboratory analytical data (March 2014 – present)
- Equipment calibration logs
- Equipment manuals
- Refrigeration log
- Laboratory bench sheets or raw data sheets (March 2014 – present)

Operations and Maintenance

- Operations and Maintenance Plan and Standard operating procedures (SOPs)
- Marine Sanitation Device (MSD) inspection records
- On-line Oil and Grease monitoring records
- Operations and maintenance log books (all areas of plant/facility)
- Operations daily rounds sheets
- Critical parts list and inventory
- Preventative maintenance program records including SOPs and pending maintenance records/outstanding maintenance needs
- Flow measurement – type of meter, meter calibration records for all meters used for compliance with NPDES Permit (i.e., influent and effluent meters)
- Auxiliary power operation (testing, and maintenance logs or records)

¹ **Note:** In addition to the items requested, also provide any other documents or tools that you believe demonstrate compliance with the permit.

***Note:** This is a comprehensive list of documentation that is typically requested at the time of inspection. Your permit may have special reporting provisions specific to your facility or facilities; those records may not be included on this list, but should be available. Some items on the list may not apply.

Exhibit 3. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 3 of 5).

Other

- Special studies or other reports
- Inventory (drilling fluid inventory constituents)
- Notices to EPA of final mud dumps (if applicable)

***Note:** This is a comprehensive list of documentation that is typically requested at the time of inspection. Your permit may have special reporting provisions specific to your facility or facilities; those records may not be included on this list, but should be available. Some items on the list may not apply.

Exhibit 3. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 4 of 5).

Tentative Agenda for NPDES Inspections of DCOR, LLC Offshore Oil and Gas Platforms Platform A & Platform Hillhouse March 7 – 9, 2016		
Day	Time	Agenda Item
Monday, March 7, 2016	8:00 am - 8:30 am	Opening Discussion <u>Meeting Location:</u> 290 Maple Court Ventura, CA 93003
	8:30 am - 11:30 pm	NPDES Permit Records Review for DCOR offshore oil and gas platforms: Platform A and Platform Hillhouse (Office)
	11:30 am - 12:00 pm	Discussion of inspection logistics for Tuesday and Wednesday offshore oil and gas platform field visits (Office)
Tuesday, March 8, 2016	7:30 am - 8:00 am	<u>Meeting Location:</u> Tar Pit Park parking lot off Dump Road, Carpinteria, CA 93013 Platform A Inspection (Field)
	8:00 am - 2:30 pm	Platform A Inspection (Field)
	2:30 pm - 3:30 pm	Boat transport back from Platform A to Carpinteria port (Field)
	3:30 pm - 4:00 pm	Discussion of inspection logistics for Wednesday offshore oil and gas platform field visit (Field)
Wednesday, March 9, 2016	7:30 am - 8:00 am	<u>Meeting Location:</u> Tar Pit Park parking lot off Dump Road, Carpinteria, CA 93013 Platform Hillhouse Inspection (Field)
	8:00 am - 2:30 pm	Platform Hillhouse Inspection (Field)
	2:30 pm - 3:30 pm	Boat transport back from Platform Hillhouse to Carpinteria port (Field)
	3:30 pm - 4:30 pm	Internal Discussion ¹ and Closing Discussion ²

¹ Internal Discussion -- Time for inspectors to arrange notes and prepare information to be discussed with the Discharger at the Closing Conference.

² The Discharger is encouraged to invite representatives from all applicable organizational divisions/departments.

Exhibit 3. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 5 of 5).



DCOR, L.L.C.
290 Maple Court, Suite 290
Ventura, CA 93003
(805) 535-2078 (Ph)
(805) 535-2075 (FAX)

December 09, 2015

Platform "A"- Marine Sanitation Device (MSD) Inspection: 2015

General NPDES permit (CAG 280000) requires Marine Sanitation Devices (MSD) to be properly maintained and operated. Additionally, they are required to be inspected annually for proper operation. To address this requirement, I inspected the unit on 12/09/2015 at around 10:30AM. The inspection included a mechanical review of the device as well as waste analysis including Total Chlorine, Coliform and Total Suspended Solids. The following discussion lists my findings followed by recommendations as applicable to maintain proper operation of the MSD.

Unit Identification, Certification, Labeling and Operation Manual: The Unit is Red Fox RF-500-FP. Serial Number is 4673; and the date of manufacture is 6/24/2009. This information was obtained from the unit's ID plate. The manual (Installation, Operation and Maintenance) is located in facility's share-drive.

Unit Size and Loading: This unit is sized for a maximum flow of 500gpd. Based on a standard 50gallons per day per person, this unit can handle 15 people. The Gray water is commingled with the sanitary waste water at the MSD discharge point. Since 8-10 people are on board on an average (not including day time visitors), this unit is adequately sized for the facility's load.

Enzyme Maintenance: Operations manually feed the unit with enzyme culture by adding 1-2 packets via a toilet every week.

Chlorination Maintenance and Monitoring: Currently the Chlorination is done by injecting liquid Bleach by gravity. Total residual Chlorine is tested minimum once a day, using Chlorine test strips and recorded. It ranges from 1 to 10 PPM.

Exhibit 4. Discharger's Platform A 2015 MSD annual inspection report dated December 9, 2015 (Page 1 of 2).

Discharge Appearance and Total Residual Chlorine Tests: During the inspection, sample of the discharge was collected for Total Residual chlorine; and it was 1mg/L

Effluent samples were also collected for TSS and Coliform on 12/14/2015. TSS was 220mg/L and Total Coliform was at 4600 and E-Coli was at 380 MPN/100ml. USCG requires MSD manufacturers to meet a maximum limit on Fecal Coliform of <200 MPN/100ml. Hence, it is recommended that the Total Residual Chlorine be increased to 3-4 mg/L.

Discharge Location and Composition: Sewage discharge enters the ocean above water level.

Internal Inspection and Cleaning: Inspection of the unit's interior could not be performed due to bolted hatches. Aeration is by compressed air and the pressure was 3 psi.

Jay Rao

Environmental Engineer

Exhibit 4. Discharger's Platform A 2015 MSD annual inspection report dated on December 9, 2015. Note that TSS, total coliform, and *E.coli* samples collected on December 14, 2015, during the annual inspection were reported by Capco Laboratory Analytical Services as 220 mg/L, 4,600 MPN/mL, and 380 MPN/mL, respectively (refer to Exhibit 4 below) (Page 2 of 2).



Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: DCOR, LLC (A Red Fox)
CAS LAB NO: 153027
Analyst: AN

Date Sampled: 12/14/15
Date Received: 12/14/15
Date Analyzed: 12/14/15
Sample Matrix: Water

TOTAL SUSPENDED SOLIDS EPA METHOD SM 2540 D				
CAS Lab #	Sample ID	RESULTS (mg/L)	DF	PQL (mg/L)
153027-01	Red Fox Effluent	220	1	5

QUALITY CONTROL REPORT

153027-MB Method Blank

BQL 1 5

mg/L: Milligrams/Liter (ppm)
DF: Dilution Factor
BQL: Below Quantitation Limit
PQL: Practical Quantitation Limit

1536 Eastman Ave. Suite B, Ventura, California 93003 Ph: (805)644-1095 FAX: (805)644-9947
www.capcoenv.com

Exhibit 5. Discharger's Platform A MSD TSS analytical results from Capco Laboratory Analytical Services for MSD effluent samples collected on December 14, 2014. Note the TSS result was 220 mg/L, which is greater than the USCG appropriate standard of 150 mg/L (Page 1 of 2).



Environmental and Analytical Services - Since 1994

Report Date: 12/17/15

Analysis: Coliform Bacteria (Quant-Tray)

DCOR, LLC (P F A)
At: Jay Rao
290 Maple Ct., Suite 290
Ventura, CA 93003

Project Name: Red Fox Effluent Annual
Sampler: Alfonso Aguilar
Matrix: Waste Water
Analyst: GP

Sample Handling Information

ID	CAS #	Description	Sample type	Sampled		Analysis	
				date	time	started	finished
1	153027-02	Red Fox Effluent	Waste-Routine	12/14/15	0550	12/14/15	1300
						12/15/15	1430

Analytical Results

ID	CAS #	Description	Chlorine total/free	Temp °C	Method	Units	Total		E. coli		Notified	
							Coliform				Person	date
1	153027-02	Red Fox Effluent	N/A	11.7	SM 9223 B	MPN / 100ml	4600		380		N/A	N/A

MPN: Most Probable Number

1536 Eastman Ave., Suite B, CA 93003 Phone: (805) 644-1095 FAX: (805) 644-8947 website: capcoenv.com

Exhibit 5. Discharger's Platform A MSD Total Coliform and *E.coli* analytical results from Capco Laboratory Analytical Services for MSD effluent samples collected on December 14, 2015. Note the Total Coliform result was 4,600 MPN/mL and the *E.coli* result was 380 MPN/mL, which are both greater than the USCG appropriate standard of less than 200 MPN/mL for these parameters (Page 2 of 2).



DCOR, LLC
290 Maple Court, Suite 290
Ventura, Ca 93003

Standard Operating Procedure (SOP)

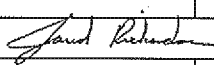
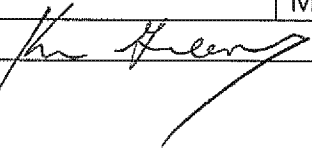
Type of Sample: Produced Water
Analysis Required: Oil and Grease
EPA Method: 1664A
Container: One Liter Glass Bottle (Amber Color)
Preservative: Hydrochloric Acid (HCl)

Procedure:

- Put on rubber gloves
- Clean and purge the sampling point
- Ensure that the sample bottle is labeled correctly.
- Hold the bottle away from your face and slowly fill the bottle all the way to the neck.
- Write down on the label (with a pen) the time and date it was sampled
- Fill out the Chain of Custody Form (with a pen) for Oil and Grease. Write down the temperature of the sample under remarks
- Keep refrigerated or use ice cubes/Blue ice.
- Sign in "Relinquished By" on the Chain before handing over to boat.

Exhibit 6. DCOR's oil and grease sampling and handling SOPs. Note that these SOPs did not include information to ensure proper sample collection, preservation, and hold times nor did it clearly describe the exact sample location (e.g., "Discharge 002"). Further, the SOPs did not discuss type of sample as "grab" or "composite".

Region 9 Enforcement Division
75 Hawthorne Street
San Francisco, CA 94105
INSPECTION REPORT

Inspection Date(s):	03/07/2016 & 03/09/2016		Inspection Announced: Yes
Time:	Entry: 6:00 a.m.	Exit: 11:00 a.m.	
Media:	Water		
Regulatory Program	CWA NPDES / Oil and Gas		
Company Name:	DCOR, LLC		
Facility or Site Name:	Platform Hillhouse		
Facility/Site Physical Location:	Santa Barbara Channel		
(city, state, zip code)	Santa Barbara, CA 93102		
Geographic Coordinates:	N34 19 52.8 W119 36 14.7		
Mailing address:	290 Maple Court, Suite 290		
(city, state, zip code)	Ventura, CA 93003		
County:	Ventura County		
Facility/Site Contact:	Jay Rao	Environmental Coordinator	
	jrao@dcorllc.com		
	805-535-2078		
Facility/Site Identifier:	NPDES Permit Nos. CAG280000 and CAF001154		
Facility/Site Personnel Participating in Inspection:			
Jay Rao	DCOR, LLC	Environmental Coordinator	jrao@dcorllc.com 805-535-2078
Steve Romp	DCOR, LLC	Lead Operator	sromp@dcorllc.com 805-535-5851
Inspector(s):			
Jared Richardson (Lead and Report Author)	PG Environmental, LLC	US EPA Contract Inspector	303-279-1778
Signature: 	Date: 04/06/2016		
Colby Tucker	US EPA Region 9 Mail Code ENF-3-1	Environmental Protection Specialist	415-972-3556
Supervisor Review:			
Ken Greenberg	US EPA Region 9 Mail Code ENF-3-1	Manager, Enforcement Division, Water Section	415-972-3577
Signature: 	Date: 7/18/16		

SECTION I – INTRODUCTION

Purpose of the Inspection

On March 7, 2016, and March 9, 2016, Jared Richardson from PG Environmental, LLC, a U.S. Environmental Protection Agency (EPA) Contract Inspector, and Colby Tucker from the U.S. EPA Region 9 Enforcement Program (hereafter, we) conducted a Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) inspection of the DCOR, LLC (hereafter, DCOR or Discharger) – Platform Hillhouse (hereafter, Facility) offshore oil and gas platform. The purpose of the inspection was to evaluate compliance with the requirements of the EPA Region 9 NPDES Permit Nos. CAG280000 and CAF001154. During the inspection we evaluated the accuracy and reliability of the Discharger's self-monitoring and reporting program and the Facility onsite generated waste streams, treatment processes, and discharges to the Pacific Ocean. The announced inspection consisted of two parts: a records review (conducted onshore on March 7, 2016) and a general Facility walk through (conducted offshore on March 9, 2016). The primary onsite Facility representative was Jay Rao (Environmental Coordinator, DCOR).

Opening Conference

Upon arriving at the Discharger's onshore office for a records review at 7:50 a.m. on March 7, 2016, we met with the primary Facility representative, Jay Rao (Environmental Coordinator, DCOR). We introduced ourselves and I presented my credential to the Environmental Coordinator and explained the purpose of the inspection.

Upon arriving at the Discharger's offshore Facility at 6:57 a.m. on March 9, 2016, we met with the Environmental Coordinator and the Facility lead operator Steve Romp (Platform Hillhouse, DCOR). We introduced ourselves and I presented my credential to the Environmental Coordinator and lead operator and explained the purpose of the inspection.

Facility/Site Description

The Platform Hillhouse is located approximately 5.5 miles offshore in the Santa Barbara channel on the Outer Continental Shelf (OCS) just southeast of Santa Barbara, California (refer to Google Earth Image A below and Photograph 1). The Platform Hillhouse was installed on November 26, 1969, and began production on July 21, 1970. It is located in the Dos Cuadras Field on federal lease OCS-P-0240 and is situated in 190 feet of water. In 1997 Nuevo took over the operations of the platform from Unocal. In 2004, Nuevo was acquired by Plains Exploration and Production (Plains), who took over operation of the platform. Plains only ran the platform for a little more than four months and then sold the operation to DCOR in March 2005. Since March 2005, DCOR took over operational control of the Dos Cuadras field including Platform Hillhouse.

At the time of the inspection, the Facility was in “production” operations, actively recovering hydrocarbons from the field formation. The Platform Hillhouse has a total of approximately 60 well slots. According to Mr. Romp at the time of the inspection, the Facility has 25 actively producing wells, 9 inactive wells, and 7 produced water reinjection (waterflood) wells. Mr. Romp stated that active drilling for new wells has not occurred on the platform since DCOR acquired operational control in 2009.

Mr. Rao stated that at the time of the inspection, the following NPDES discharges occur or may occur from the Facility:

- Produced Water (Discharge 002)
- Deck Drainage (Discharge 004)
- Fire Control System Water (Discharge 008)
- Sanitary Wastes (Discharge 005)
- Desalination Unit Wastes (Discharge 007)
- Non-contact Cooling Water (Discharge 009)

Note the discharge number (i.e., Discharge 002) referenced throughout this report refers to the type of wastewater discharged at the corresponding outfall point as designated in the Permit.

It should be noted that Platform Hillhouse receives, treats, and discharges produced water at Discharge 002, from DCOR’s Platform Henry as well.

A general description of the process train(s) for each of the above mentioned discharges is described below:

Produced water (Discharge 002) is water (brine) associated with the extraction of oil and gas from the hydrocarbon-bearing strata which may include formation water, injection water, oil emulsions, and any chemicals added downhole or during the oil/water separation process. Produced water and oil and gas is routed to one of two two-phase production separators (South #1 and North #2) that are located on the production deck. At the time of the inspection, only the South #1 production separator was in use; the North #2 separator was in standby. The produced water then is routed to two heater treaters (North and South) located on the production deck. Mr. Romp stated that, the heating aspect of the two heater treaters was not currently in operation (refer to Photograph 4). From the North and South heater treaters, chemical additives are added to the produced water prior to further treatment in two mechanical induced gas floatation WEMCO oil and water separators that are typically operated in series. The WEMCO oil and water separators are located on the production deck. Both

WEMCO units were in use and operational at the time of the inspection (refer to Photograph 5). Following the WEMCO units, produced water is directed to a surge tank and then discharged to the Pacific Ocean via a 90 foot submerged outfall. It should be noted that the Facility deck drainage (Discharge 004) and fire control system water (Discharge 008) are “commingled” with the produced water treatment train at the WEMCOs. The Discharger provided a process flow diagram of the produced water oil/water conveyance and treatment system (refer to Exhibit 1).

Deck drainage (washdown, rainwater, drip pan and work area drains – Discharge 004) and fire control system water (seawater released during training, testing, and maintenance of fire protection equipment – Discharge 008) are commingled and collected in a sump tank/vessel (refer to Photograph 2). The sump tank/vessel is located on the sump deck. From the sump tank/vessel, the wastewater is pumped to an old oil treater tank originally from Platform Henry that has been repurposed as the settling tank (refer to Photograph 3). The settling tank is located on the production deck. From the settling tank the wastewater is “commingled” with produced water through the WEMCO units. From the WEMCO units, the commingled wastewater (deck drainage, fire control system water, and produced water) is directed to a surge tank and then discharged to the Pacific Ocean via a 90 foot submerged outfall. For additional details of the produced water process treatment train refer to the paragraph above.

Sanitary (black water) wastewater is treated onsite at the Facility with a redFox® environmental marine sanitation device (MSD) Fox Pac Model No. RF-1000-FP, Serial No. 3709, which is United States Coast Guard (USCG) approved (refer to Photograph 6). The MSD unit is sized for a maximum of 1,000 gallons per day (gpd). The treated sanitary wastewater (Discharge 005) is then discharged to the Pacific Ocean via a 2 to 3 inch drain (refer to Photograph 7). Domestic (greywater) discharges are commingled with produced oil and sent via shipping pumps to DCOR’s onshore Rincon Treatment Facility. The onsite Facility representatives stated that the black water flow rate is estimated based on 50 gpd per person on the platform. The MSD unit is sized for a maximum of 1000 gpd. The Facility was staffed with 5 people at the time of the inspection.

Desalination (i.e., reverse osmosis) unit wastewater (Discharge 007) is generated during the process of creating freshwater from saltwater. According to onsite Facility representatives, the desalination unit located on the drill deck provides water only to sinks and showers at the Facility (refer to Photograph 8). We also observed the desalination unit wastewater discharge location (refer to Photograph 9). Onsite Facility representatives were unable to provide how often the desalination unit operates. At the time of the inspection, the desalination unit was in standby mode. According to Mr. Rao and Mr. Romp, the chlorine addition feed pump on the desalination unit is not used (refer to Photograph 8).

Non-contact cooling water (Discharge 009) circulates through machinery for the purpose of cooling. Non-contact cooling water is utilized by the Facility for reducing gas temperatures in the Facility heat exchangers. The onsite Facility representatives stated that the non-contact cooling water discharge averaged approximately 7,062 barrels per day (bbl/d) (296,604 gpd). The non-contact cooling water discharge location was not evaluated as a component of this inspection.



Image A: Google Earth image of Facility

SECTION II – OBSERVATIONS

Following the opening conference at the onshore Facility with Mr. Rao on March 7, 2016, we reviewed records requested prior to the inspection that were to be available onsite (refer to Exhibit 2). The general period of records reviewed was from March 2014 through March 2016. We reviewed Electronic Discharge Monitoring Reports (eDMRs) for the period as a component of this inspection. The review included a spot check comparison of reported monitoring results versus requirements and limitations in the Permit. No Permit limit exceedances were identified during our document review. We also compared select monitoring results reported in the eDMRs to the contract analytical laboratory reports. We did not review previous inspection reports as a component of the inspection. In addition, we discussed scope, logistics, and health

and safety items in preparation for the offshore Platform Hillhouse inspection that was conducted on March 9, 2016.

On March 9, 2016, we met the boat for transport to the offshore Facility at 6:57 a.m. Upon arriving at the offshore Facility, we met with the Environmental Coordinator and the Facility lead operator Mr. Romp. We introduced ourselves and I presented my credentials and I explained the purpose and scope of the inspection. Mr. Romp and Mr. Rao then escorted us on a Facility walk through. We visually evaluated the produced water and black water treatment trains and general Facility site conditions during the walk through.

We observed the Facility redFox® MSD used to treat sanitary (black water) wastes (Discharge 005) prior to being discharged to the Pacific Ocean (refer to Photographs 6 and 7). The redFox® MSD unit was stamped with a manufacture date of July 2, 1997.

During the Facility walk through, we observed the Facility's produced water treatment train. The Discharger's produced water (Discharge 002) NPDES sampling point is located at the discharge pipe off of the surge tank. We viewed this discharge pipe as a component of the inspection (refer to Photograph 10). Based on our observations during the inspection, the produced water NPDES oil and grease sample location appeared to provide representative samples. The receiving water (Pacific Ocean) within the vicinity of the produced water discharge pipe was viewed and observed to be free of visually objectionable characteristics at the time of the inspection (refer to Photograph 11). Mr. Romp stated that the Facility has the ability to bypass the WEMCO units, if needed like in instances of high produced water production. Facility representatives stated that in these instances the produced water is routed via pipeline to the Discharger's onshore Rincon Treatment Facility during a bypass. Facility representatives stated that the last known bypasses of the Facility WEMCOs occurred during the previous Permit period on:

- April 7, 2013 (279 bbls; 11,718 gallons), due to high production and float over in the onsite Henry treater.
- April 10, 2013 (113 bbls; 4,746 gallons), due to float over in the onsite Henry treater.

We observed the Facility on-line oil and grease monitor, which was installed in accordance with Part II.G.6, On-Line Oil and Grease Monitors, requirements of the Permit. The Discharger conducts additional internal process monitoring for oil and grease in produced water after the surge tank via continuous inline turbidity measurement utilizing a HACH Surface Scatter® 6 sc turbidimeter (refer to Photographs 12 and 13). At the time of the inspection, we observed the continuous inline turbidity measurement of produced water to be 1.59 nephelometric turbidity units (NTUs). The Facility representatives stated that there is an alarm (visual and audible) that

activates when the inline turbidity monitor exceeds 15 NTU and 20 NTU. The Facility representatives stated that these set points were to ensure the produced water (Discharge 002) did not exceed the monthly average and daily maximum oil and grease Permit effluent limits of 29 mg/L and 42 mg/L, respectively. The Facility representatives said the set points were developed based on Facility-specific correlation between the turbidity monitor and oil and grease measurements. The Discharger calibrates the inline turbidimeter quarterly in accordance with manufacturers' recommendations. During the inspection, we confirmed that the Discharger was performing the calibrations using the cylinder method with a 4,000 NTU formazin solution (refer to Photograph 14). Facility representatives provided documentation for the inline turbidimeter calibrations that were conducted on March 26, 2015, May 26, 2015, August 27, 2015, November 21, 2015, and February 14, 2016.

We observed the desalination unit and waste stream discharge location (Discharge 007) at the time of the inspection (refer to Photographs 8 and 9). Because the desalination unit was not in use at the time of the inspection, it was unknown if the Discharger conducted daily daylight hour monitoring by visual observation (for foam or floating solids) in the vicinity of the desalination unit waste stream discharge (Discharge 007) when the desalination unit was in use.

We observed the sump tank/vessel (refer to Photograph 2) located on the sump deck. We observed what appeared to be an active petroleum product leak from the pipe connection to the sump tank/vessel, which was actively running down the sides of the tank (refer to Photographs 15 and 16).

As part of the Facility walk through, we reviewed the Facility operations and maintenance procedures including processes for scheduling and documenting maintenance activities, the current backlog, and standard operating procedures (SOPs). Facility representatives stated that the Facility utilizes the computerized maintenance management system (CMMS), MainSaver, to schedule and document maintenance activities. Facility representatives provided us with a demonstration of the CMMS during the inspection.

As a component of the inspection, we requested and reviewed the Discharger's sampling and handling methods for oil and grease (refer to Exhibit 5). We observed that the SOPs did not include sampling and handling procedures to ensure that all minimum monitoring information was recorded as required by Part III.E, Records Contents, of the Permit.

SECTION III – AREAS OF CONCERN

We held a closing conference post-inspection via conference call with the Mr. Rao on March 28, 2016. During the closing conference, we reviewed the preliminary inspection observations and areas of concern. The presentation of areas of concern does not constitute a formal compliance determination or violation.

1. Part II.B.3, Produced Water Commingled Waste Streams, of the Permit, states “If deck drainage, work over, completion, well treatment or test fluids or other authorized discharges are commingled with produced water “commingled” shall be reported on the DMRs for both produced water and the waste stream mixed with it.”

As a result of our eDMR review, we observed that the Discharger did not appear to clearly report on the eDMRs that deck drainage (Discharge 004) and fire control system water (Discharge 008) were “commingled” with produced water discharges (Discharge 002). We observed that the Discharger reported “No Discharge” on eDMRs for both deck drainage (Discharge 004) and fire control system water (Discharge 008), which is not consistent with the Permit requirements.

2. Part III.E, Records Contents, of the Permit, requires that the following monitoring information be documented: “1. The date, exact place, and time of sampling or measurements; 2. The individual(s) who performed the sampling or measurements; 3. The date(s) analyses were performed; 4. The individual(s) who performed the analyses; 5. The analytical techniques or methods used; and 6. The results of such analyses.”

We observed that the Discharger’s SOPs for produced water oil and grease sampling and handling did not include minimum monitoring information requirements or requirements to ensure proper sample collection, preservation, and hold times (refer to Exhibit 5). Specifically, the Discharger SOPs did not clearly describe the exact sample location for produced water oil and grease waste stream as “Discharge 002”, or that oil and grease samples should be labeled for type of sample as “grab” or “composite”. Note that Table 6 – Produced Water Effluent Limitations and Monitoring Requirements, of the Permit, states that the Discharger’s oil and grease produced water sample type/method shall be either a grab sample or composite sample. Additionally, the SOPs did not include information or requirements for oil and grease sample preservation (i.e., $\leq 6^{\circ}\text{C}$ within 15 minutes of collection for grab samples) or maximum holding time (e.g., 28 days for oil and grease), as detailed in 40 CFR Part 136 and required by Part II.B.6, Produced Water Monitoring Requirements, of the Permit. We further observed that the SOPs did not ensure that the sample collection method for produced water oil and

grease samples would ensure that the laboratory provided sample bottle preservative of hydrochloric acid (HCl) would be maintained. For example, the Discharger's SOP did not provide sample collection and handling guidance on not overfilling the oil and grease sample to prevent the loss of HCl preservative.

3. Part II.C.3, Well Treatment, Completion and Workover Fluids (Discharge 003), Chemical Inventory, of the Permit, requires "The Permittee shall maintain an inventory of the quantities and concentrations of the specific chemicals used to formulate well treatment, completion and workover fluids. If there is a discharge of these fluids, the chemical formulation, concentrations and discharge volumes of the fluids shall be submitted with the eDMR. For discharges of well treatment, completion and workover fluids, the type of operation that generated the discharge fluids shall also be reported."

We observed that the Discharger did not submit with the eDMRs a chemical inventory including chemical formulation and concentrations of these fluids used for well treatment, completion and workover fluids

4. Part II.E, Domestic and Sanitary Wastes (Discharge 005) Footnote 2, of the Permit, states "Any facility which properly operates and maintains a marine sanitation device (MSD) that was certified by the United States Coast Guard (USCG) under Section 312 of the Act shall be deemed to be in compliance with permit limitations for sanitary wastes and the requirements for total residual chlorine do not apply. The MSD shall be inspected yearly for proper operation, and the inspection results maintained with the permit records." The total and fecal coliform USCG "appropriate standards" in 40 CFR Part 140.3(d) state that "After January 30, 1980, subject to paragraphs (e) and (f) of this section, marine sanitation devices on all vessels on waters that are not subject to a prohibition of the overboard discharge of sewage, treated or untreated, as specified in paragraph (a)(1) of this section, shall be designed and operated to either retain, dispose of, or discharge sewage, and shall be certified by the U.S. Coast Guard. If the device has a discharge, the effluent shall not have a fecal coliform bacterial count of greater than 200 per 100 milliliters (i.e., 200 Most Probable Number (MPN)/100 mL), nor suspended solids greater than 150 mg/L."

Based on a review of the Discharger's 2014 and 2015 annual Facility MSD inspection records (refer to Exhibit 3), we observed that the MSD unit did not meet total and fecal coliform USCG "appropriate standards" for MSD effluent per 40 CFR Part 140.3(d) for samples collected on December 15, 2014 (refer to Exhibit 4 Page 2). Specifically, the Discharger's contract laboratory analytical results for the MSD effluent samples collected on December 15, 2014, for total coliform and *E.coli* were greater than 24,000

MPN/100 mL (120 times greater than the USCG appropriate standard). Refer to Exhibit 3 and Exhibit 4 which include:

- The Discharger's 2014 MSD annual inspection report dated December 10, 2014.
- The corresponding Capco Laboratory Analytical Services laboratory analytical results, dated December 29, 2014, for the MSD effluent samples collected on December 15, 2014.

It should be noted that in response to the USCG appropriate standard exceedance of total coliform and *E.coli* parameters in 2014, the Discharger recommended (refer to Exhibit 3 Page 2) increasing the total chlorine residual to 4 to 5 parts per million (ppm) within the MSD unit disinfection chamber. It should be noted that based on our review of the Discharger's 2015 annual Facility MSD inspection and associated contract laboratory analytical results, the Facility MSD unit did not exceed the USCG appropriate standards for total coliform and *E.coli* in 2015.

We also noted that the Discharger had not inspected the internal media bed and media chambers annually as stated in the manufacturer's specifications. We also observed in the Discharger's 2014 and 2015 annual Facility MSD inspection reports that inspections of the MSD unit's interior was not performed due to "bolted hatches" (refer to Exhibit 3 Page 2). However, the redFox® FoxPac manufacturer installation, operation, and maintenance manual obtained from redFox® post-inspection recommends that the interior media bed and media chamber be inspected and cleaned annually. It was unclear if the Discharger performed the recommended media bed and media chamber inspection and cleaning for the MSD unit in accordance with manufacturer's recommendations and the proper operation and maintenance provision of the Permit. Specifically, the Discharger's 2014 and 2015 annual Facility MSD inspection reports stated that the interiors were not inspected; however, the report stated that the unit was cleaned in April 2014 and March 2015. It was not clear to us how the MSD unit was cleaned if the media and disinfection chambers were not inspected.

5. Part II.F, Miscellaneous Discharges (Discharges 006-022) and Table 10 – Effluent Limitations and Monitoring Requirements, of the Permit, states that daily daylight hour visual observation (i.e., foam or floating solids) monitoring of the surface of the receiving water in the vicinity of the discharge shall be conducted.

We observed that the Facility representatives were not familiar with the frequency of the desalination unit's use or the associated waste stream discharges to the Pacific Ocean (Discharge 007). Because the desalination unit was not in use at the time of the

inspection, it was also unknown if the Facility conducted daily daylight hour visual observation monitoring and recordkeeping of the desalination unit waste stream when in use. The desalination unit (refer to Photographs 8 and 9) was in standby mode during the Facility walk through.

6. Part IV.(e), Proper Operation and Maintenance, of the Permit, states that “The Permittee shall at all times properly operate and maintain all facilities and system of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit.”
 - a. We observed what appeared to be an active petroleum product leak from a pipe connection running down the side of the sump tank/vessel (refer to Photographs 2, 15, and 16). The sump tank/vessel receives deck drainage and fire control system water prior to being pumped into the onsite repurposed platform Henry treater, now known as the settling tank (refer to Photograph 3). The deck drainage and fire control system water are subsequently commingled with the produced water treatment process just upstream of the WEMCO units. This petroleum product leak was not cleaned up or remediated at the time of the inspection.
 - b. We observed that the Discharger lacked a formal, reproducible process and SOPs for scheduling and documenting maintenance activities. Facility representatives provided us with a demonstration of their CMMS MainSaver program at the time of the inspection. The Facility had a total of 30 open work orders and 169 preventative maintenance work orders for the Facility at the time of the inspection. We observed that the Discharger’s CMMS was not being utilized to adequately generate and document corrective action work orders or to address immediate maintenance items for NPDES treatment units at the Facility. As stated by Mr. Romp, the Discharger was not utilizing the CMMS system to generate and track potential immediate repair needs for the Facility WEMCOs (e.g., broken paddle), but rather would just complete the work without entering into the CMMS, documenting, or tracking repairs to ensure proper operation and maintenance of the process units at the Facility.

SECTION IV – LIST OF APPENDICES

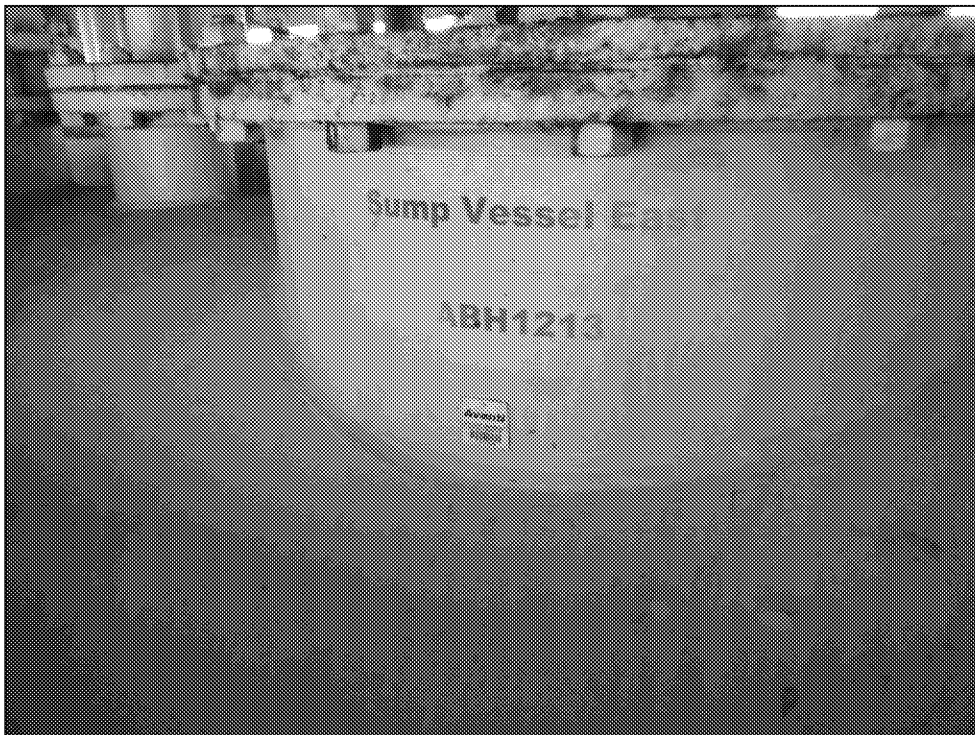
Appendix 1 – Photograph Log (Note red text and callouts added by inspector)

Appendix 2 – Exhibit Log (Note red text and callouts added by inspector)

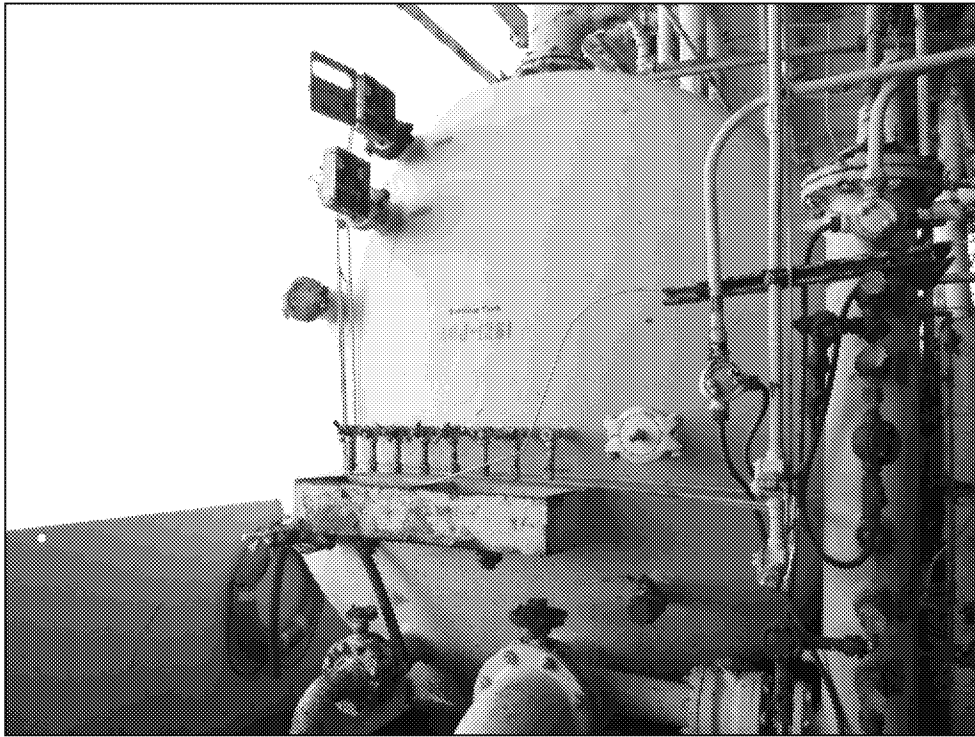
APPENDIX 1 – Photograph Log



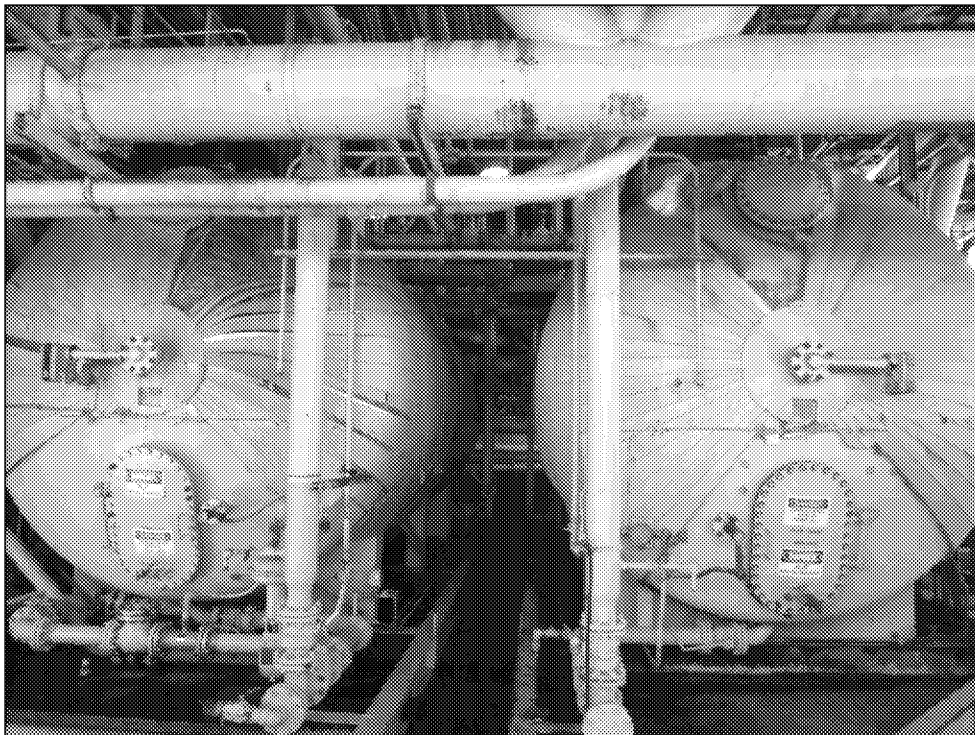
Photograph 1. View of DCOR, LLC's offshore Platform Hillhouse.



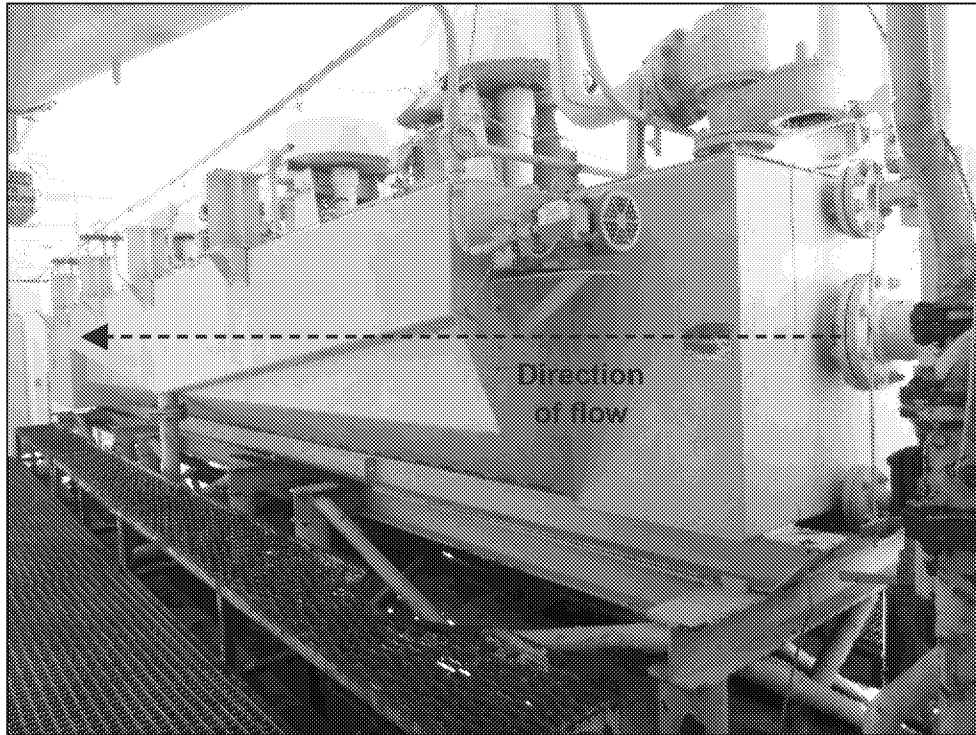
Photograph 2. View of sump tank/vessel located on the sump deck, which temporarily stores deck drainage and fire control system water prior to being commingled with the produced water treatment train.



Photograph 3. View of old Platform Henry oil treater tank located on the production deck of the Facility. This tank has been repurposed and is now known as the settling tank and receives deck drainage and fire control system water from the sump tank/vessel prior to being commingled with produced water at the WEMCOs.



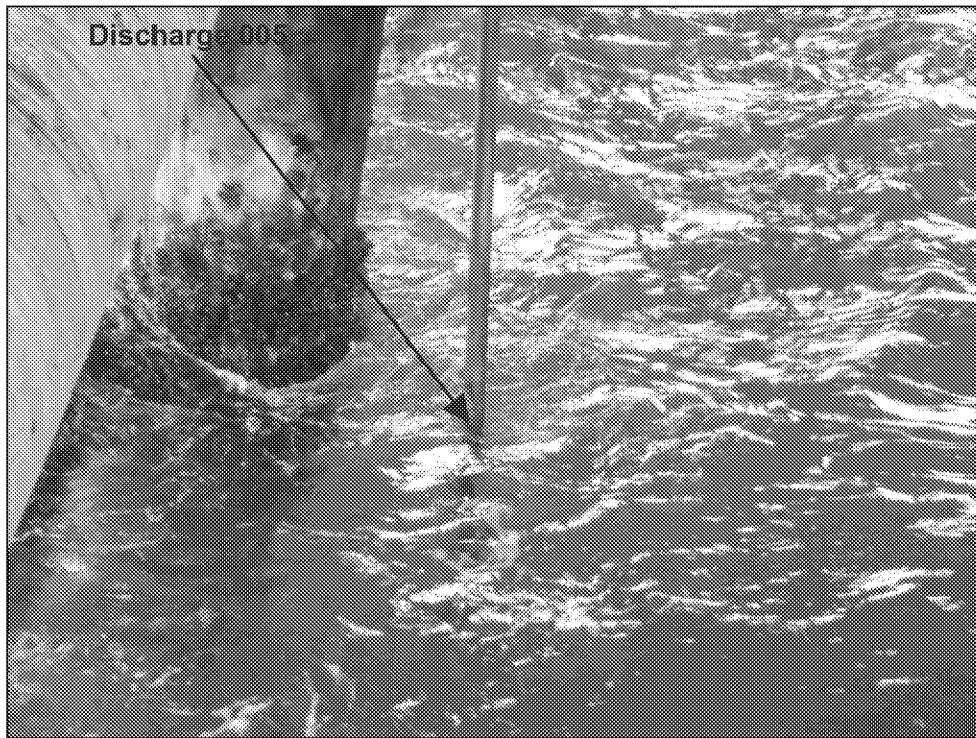
Photograph 4. View of two heater treaters (North and South) located on the production deck.



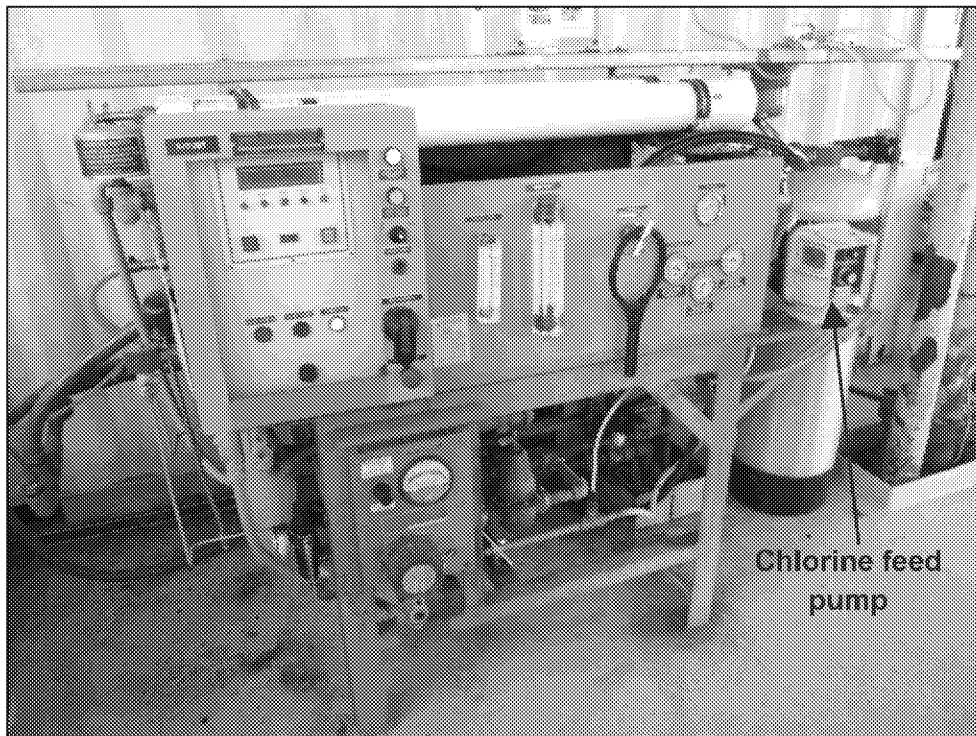
Photograph 5. View of one of two mechanical WEMCO oil and water separators used at the platform.



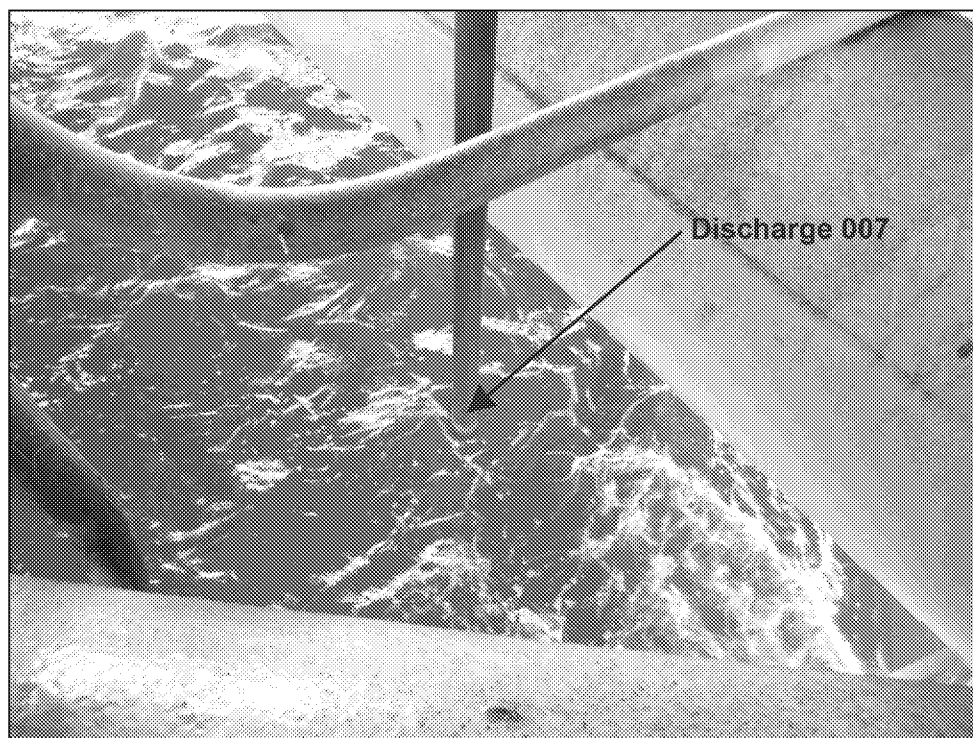
Photograph 6. View of the redFox® environmental marine sanitation device (MSD) Fox Pac Model No. RF-1000-FP, Serial No. 3709 used to treat domestic and sanitary wastes.



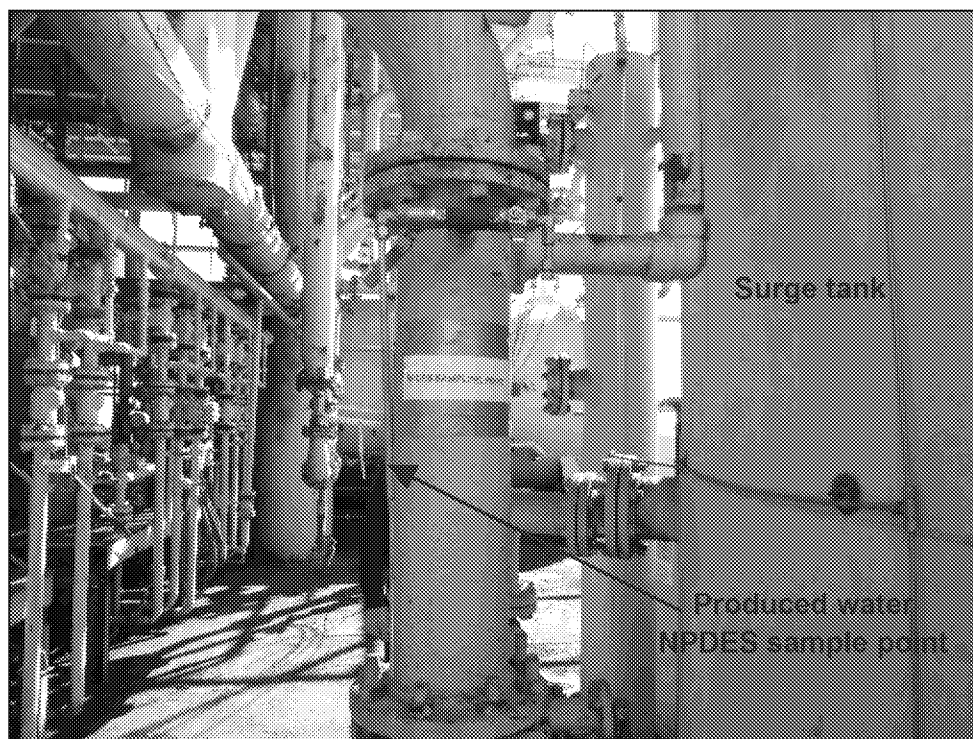
Photograph 7. View of domestic and sanitary wastes discharge point (Discharge 005) to the Pacific Ocean.



Photograph 8. View of the desalination (i.e., reverse osmosis) unit located on the drill deck. According to onsite Facility representatives, the desalination unit is periodically used to provide water for sinks and showers on the platform.



Photograph 9. View of the desalination (i.e., reverse osmosis) unit wastes discharge point (Discharge 007) to Pacific Ocean.



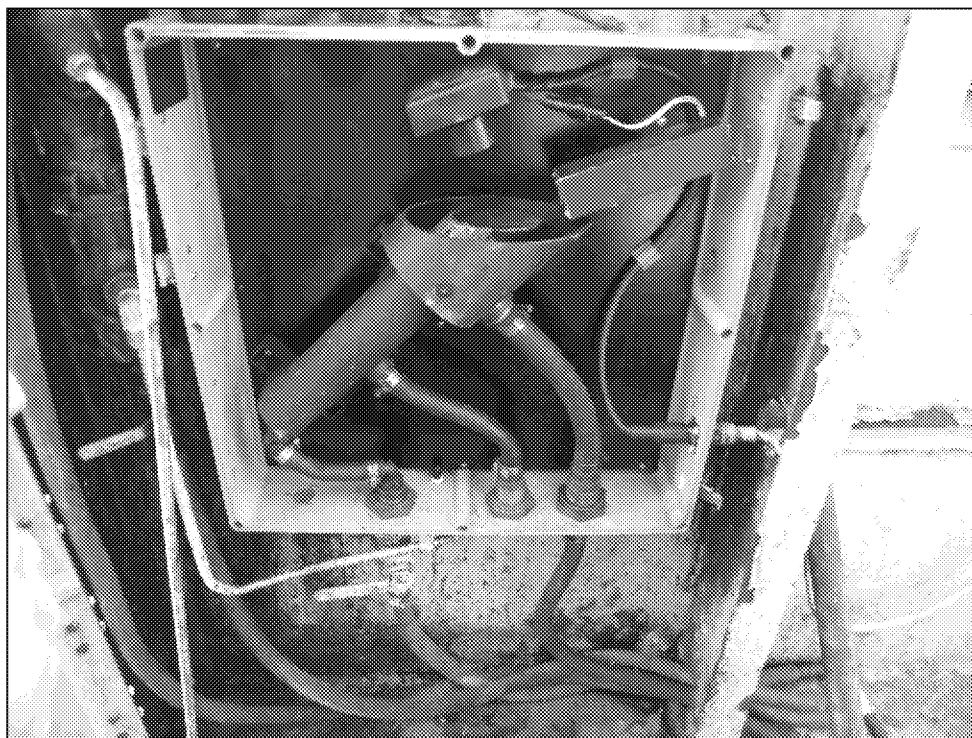
Photograph 10. View of produced water (Discharge 002) NPDES sampling point located off of the discharge pipe from the surge tank.



Photograph 11. View of the receiving water (Pacific Ocean) within the vicinity of platform Hillhouse at the time of the inspection.



Photograph 12. View of continuous inline turbidity measurement device, a HACH Surface Scatter® 6 sc turbidimeter. The Discharger uses this to comply with Part II.G.6, On-Line Oil and Grease Monitors, of the Permit.



Photograph 13. Close-up view of continuous inline turbidity measurement device, shown in Photograph 12.



Photograph 14. View of a 500 mL bottle of 4,000 NTU formazin turbidity standard solution utilized in calibrating the inline turbidimeter via cylinder method.



Photograph 15. View of petroleum product leak from pipe connection to sump tank/vessel, shown in Photograph 2.



Photograph 16. Close-up view of petroleum product leak on pipe connection to sump tank/vessel, shown in Photograph 15.

APPENDIX 2 – Exhibit Log

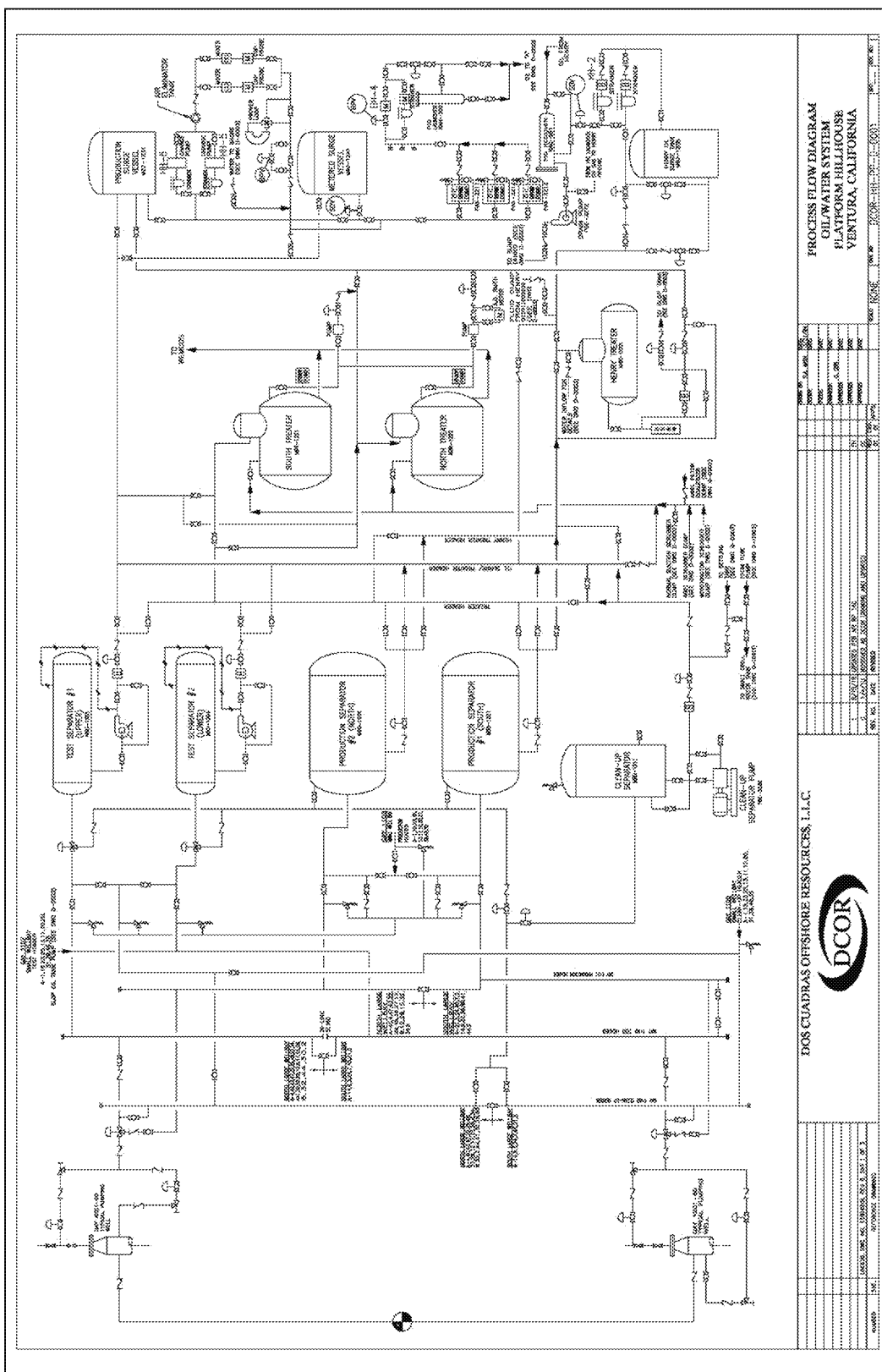


Exhibit 1. DCOR's process flow diagram of the oil/water conveyance and treatment system for Platform Hillhouse.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

February 23, 2016

Jay Rao, Environmental Coordinator
290 Maple Court, Suite 290
Ventura, California 93003

Re: Notice of Inspection
DCOR, LLC – Offshore oil and gas platforms (Platform A and Platform Hillhouse)
National Pollutant Discharge Elimination System (NPDES) Permit No. CAG280000

Dear Mr. Jay Rao:

The U.S. Environmental Protection Agency (EPA) Region 9 will be conducting an inspection of DCOR, LLC offshore oil and gas platforms in the Santa Barbara Channel to assess compliance with the Discharger's Clean Water Act (CWA) NPDES permit.

EPA Region 9 has contracted with PG Environmental, LLC (PG) to conduct the inspections on behalf of EPA. Anticipate that one or more EPA Region 9 personnel and tentatively Bureau of Safety and Environmental Enforcement (BSEE) personnel will accompany PG/EPA during the inspection process.

The inspection will consist of office interviews, in-field reviews, and evaluation of overall success/effectiveness in meeting the conditions and requirements contained in the permit. The inspection is scheduled for **March 7 – 9, 2016**. An inspection agenda and general records request is attached for your reference. The agenda is a basic outline of how the inspection will be structured. The records request is merely a guide to help you prepare for the inspection. If there are other documents not on the list that you feel would help demonstrate your compliance with the permit, please have them available for review. Please do not make copies of these documents for our collection. We may identify documents or portions of documents for collection during the inspection.

Your primary points of contact for the inspection process are as follows:

EPA – Colby Tucker (415) 972-3556, tucker.williams@epa.gov
PG – Jared Richardson (303) 279-1778 x 106, jared.richardson@pgenv.com

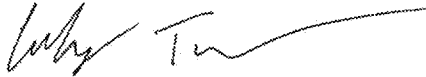
Printed on Recycled Paper

Exhibit 2. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 1 of 5).

Page 2 of 2

Thank you for your efforts and participation in the inspection process. If you have any questions or need additional information, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Colby Tucker", with a long horizontal flourish extending to the right.

William (Colby) Tucker, Environmental Protection Specialist
ENF-3-1
U.S. Environmental Protection Agency, Region 9

cc: Jared Richardson, PG Environmental, LLC

Exhibit 2. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 2 of 5).

Compliance Evaluation Inspection – Records Request

Records Requested to be available on-site¹ for NPDES Discharge Permits:

Permit

- Current NPDES Permit Discharge Requirements:
 - Any permit amendments
 - Compliance Schedules or Time Schedule Orders (TSOs)
 - Monitoring and Reporting Program Requirements
- Stormwater Notice of Intent (NOI) and General Discharge Permit Requirements (if applicable)

Routine Reporting

- Discharge Monitoring Reports (DMRs) and/or Self Monitoring Reports (SMRs) (March 2014 – present)
- Annual Reports (latest two annual reporting periods)
- Whole Effluent Toxicity Testing (WET) and Analytical Results
- Chemical Inventories
- Compliance order status including scheduled reports, actions taken, pending items (if applicable)
- Spill records – Sewage, chemical, and otherwise

Plans

- Toxicity Identification Evaluations (TIE) or Toxicity Reduction Evaluations (TRE)
- Non-Contact Cooling Water Intake reports or studies
- Spill Prevention Control and Countermeasures (SPCC) plan (if applicable)
- Stormwater Pollution Prevention Plan (SWPPP) and applicable documentation (if applicable)

Laboratory

- Laboratory certification (ELAP) – On-site lab and contract labs
- Laboratory Quality Assurance (QA) / Quality Control (QC) Program
- Standard operating procedures (SOPs)
- Sample chain-of-custodies (COCs) and corresponding laboratory analytical data (March 2014 – present)
- Equipment calibration logs
- Equipment manuals
- Refrigeration log
- Laboratory bench sheets or raw data sheets (March 2014 – present)

Operations and Maintenance

- Operations and Maintenance Plan and Standard operating procedures (SOPs)
- Marine Sanitation Device (MSD) inspection records
- On-line Oil and Grease monitoring records
- Operations and maintenance log books (all areas of plant/facility)
- Operations daily rounds sheets
- Critical parts list and inventory
- Preventative maintenance program records including SOPs and pending maintenance records/outstanding maintenance needs
- Flow measurement – type of meter, meter calibration records for all meters used for compliance with NPDES Permit (i.e., influent and effluent meters)
- Auxiliary power operation (testing, and maintenance logs or records)

¹ **Note:** In addition to the items requested, also provide any other documents or tools that you believe demonstrate compliance with the permit.

***Note:** This is a comprehensive list of documentation that is typically requested at the time of inspection. Your permit may have special reporting provisions specific to your facility or facilities; those records may not be included on this list, but should be available. Some items on the list may not apply.

Exhibit 2. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 3 of 5).

Other

- Special studies or other reports
- Inventory (drilling fluid inventory constituents)
- Notices to EPA of final mud dumps (if applicable)

***Note:** This is a comprehensive list of documentation that is typically requested at the time of inspection. Your permit may have special reporting provisions specific to your facility or facilities; those records may not be included on this list, but should be available. Some items on the list may not apply.

Exhibit 2. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 4 of 5).

Tentative Agenda for NPDES Inspections of DCOR, LLC Offshore Oil and Gas Platforms Platform A & Platform Hillhouse March 7 – 9, 2016		
Day	Time	Agenda Item
Monday, March 7, 2016	8:00 am - 8:30 am	Opening Discussion <u>Meeting Location:</u> 290 Maple Court Ventura, CA 93003
	8:30 am - 11:30 pm	NPDES Permit Records Review for DCOR offshore oil and gas platforms: Platform A and Platform Hillhouse (Office)
	11:30 am - 12:00 pm	Discussion of inspection logistics for Tuesday and Wednesday offshore oil and gas platform field visits (Office)
Tuesday, March 8, 2016	7:30 am - 8:00 am	<u>Meeting Location:</u> Tar Pit Park parking lot off Dump Road, Carpinteria, CA 93013 Platform A Inspection (Field)
	8:00 am - 2:30 pm	Platform A Inspection (Field)
	2:30 pm - 3:30 pm	Boat transport back from Platform A to Carpinteria port (Field)
	3:30 pm - 4:00 pm	Discussion of inspection logistics for Wednesday offshore oil and gas platform field visit (Field)
Wednesday, March 9, 2016	7:30 am - 8:00 am	<u>Meeting Location:</u> Tar Pit Park parking lot off Dump Road, Carpinteria, CA 93013 Platform Hillhouse Inspection (Field)
	8:00 am - 2:30 pm	Platform Hillhouse Inspection (Field)
	2:30 pm - 3:30 pm	Boat transport back from Platform Hillhouse to Carpinteria port (Field)
	3:30 pm - 4:30 pm	Internal Discussion ¹ and Closing Discussion ²

¹ Internal Discussion – Time for inspectors to arrange notes and prepare information to be discussed with the Discharger at the Closing Conference.

² The Discharger is encouraged to invite representatives from all applicable organizational divisions/departments.

Exhibit 2. EPA Region 9 Notice of Inspection letter provided to DCOR via e-mail prior to the inspection on February 23, 2016 (Page 5 of 5).



DCOR, L.L.C.
290 Maple Court, Suite 290
Ventura, CA 93003
(805) 535-2078 (Ph)
(805) 535-2075 (FAX)

December 10, 2014

Platform Hillhouse- Marine Sanitation Device (MSD) Inspection: 2014

General NPDES permit (CAG 280000) requires Marine Sanitation Devices (MSD) to be properly maintained and operated. Additionally, they are required to be inspected annually for proper operation. To address this requirement, I inspected the unit on 12/10/2014. The inspection included a mechanical review of the device as well as waste analysis including Total Chlorine, Coliform and Total Suspended Solids. The following discussion lists my findings followed by recommendations as applicable to maintain proper operation of the MSD.

Unit Identification, Certification, Labeling and Operation Manual: The Unit is Red Fox RF-1000-FP. Serial Number is 3709; and the date of manufacture is 07/02/1997. This information was obtained from the unit's ID plate. The manual (Installation, Operation and Maintenance) is located on file aboard the facility.

Unit Size and Loading: This unit is sized for a maximum flow of 1000gpd. Based on a standard 50gallons per day per person, this unit can handle 20-25 people. The Gray water is processed through the system and discharged overboard as produced water. Since 8-10 people are on board on an average (not including day time visitors), this unit is adequately sized for the facility's load.

Enzyme Maintenance: Operations manually feed the unit with enzyme culture by adding 1-2 packets via a toilet every week.

Chlorination Maintenance and Monitoring: Currently the Chlorination is done by gravity feed. Total residual Chlorine is tested minimum once a day using test strips and recorded. It ranges from 1 to 10 PPM.

Exhibit 3. Discharger's Platform Hillhouse 2014 MSD annual inspection report dated December 10, 2014 (Page 1 of 2).

Discharge Appearance and Total Residual Chlorine Tests: During the inspection, sample of the discharge was collected for Total Residual chlorine and it was 3 PPM.

Effluent samples were also collected on 12/15/2014 for TSS and Coliform. The TSS was 42 mg/L, Total and Fecal Coliform were >2400MPN/100ml. USCG requires MSD manufactures to meet a maximum limit on Fecal Coliform of <200 MPN/100ml. Hence it is recommended that the Total Residual Chlorine be increased to 4-5 PPM.

Discharge Location and Composition: Sewage discharge enters the ocean below water level.

Internal Inspection and Cleaning: Inspection of the unit's interior could not be performed due to bolted hatches. Aeration is by compressed air and the pressure was 6 psi.

The unit was cleaned in April, 2014

Jay Rao

Environmental Engineer

Exhibit 3. Discharger's Platform Hillhouse 2014 MSD annual inspection report dated December 10, 2014. Note that coliform samples were reported by Capco Laboratory Analytical Services as >24,000 MPN/mL (refer to Exhibit 4 below) (Page 2 of 2).



Environmental and Analytical Services Since 1994
 California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: DCOR, LLC (Hillhouse Red Fox) Date Sampled: 12/15/14
 CAS LAB NO: 143199 Date Received: 12/15/14
 Analyst: AN Date Analyzed: 12/17/14
 Sample Matrix: Water


TOTAL SUSPENDED SOLIDS EPA METHOD SM 2540 D				
CAS Lab #	Sample ID	RESULTS (mg/L)	Dilution Factor	PQL (mg/L)
143199-01	Red Fox Effluent	42	1	5

QUALITY CONTROL REPORT

143199-MB Method Blank BQL 1 5

1536 Eastman Ave. Suite B, Ventura, California 93003 Ph: (805)644-1095 FAX: (805)644-9947
 www.capcoenv.com

Exhibit 4. Discharger's Platform Hillhouse MSD Total Suspended Solids (TSS) analytical results from Capco Laboratory Analytical Services for MSD effluent samples collected on December 15, 2014 (Page 1 of 2).



Environmental and Analytical Services - Since 1994

Report Date: 12/29/14

DCOR, LLC (PF Hillhouse Red Fox)
 Att: Jay Rao
 290 Maple Ct., Suite 290
 Ventura, CA 93003

Analysis: **Coliform Bacteria**

Project Name: Red Fox Effluent-Annual
 Sampler: Client
 Matrix: Waste Water
 Analyst: GP

Sample Handling Information

ID	CAS #	Description	Sample type	Sampled		Analysis	
				date	time	started	finished
1	143199-02	Red Fox Effluent	Waste-Routine	12/15/14	700	12/15/14	1330

Analytical Results

ID	CAS #	Description	Chlorine total/free	Temp °C	Method Quant-tray SM 9223 B	Units MPN / 100ml	Total		E. coli		Notified	
							Coliform	>24000	E. coli	>24000	Person	date
1	143199-02	Red Fox Effluent	n/a	20.0			>24000	>24000			n/a	n/a

MPN: Most Probable Number

1536 Eastman Ave., Suite B, CA 93003 Phone: (805) 944-1095 FAX: (805) 944-9947 website: capcoenv.com

Exhibit 4. Discharger's Platform Hillhouse 2014 MSD Total Coliform and *E.coli* analytical results from Capco Laboratory Analytical Services for MSD effluent samples collected on December 15, 2014. Note the Total Coliform results were greater than 24,000 MPN/mL (120 times greater than the USCG appropriate standard of less than 200 MPN/mL). (Page 2 of 2).



DCOR, LLC
290 Maple Court, Suite 290
Ventura, Ca 93003

Standard Operating Procedure (SOP)

Type of Sample: Produced Water
Analysis Required: Oil and Grease
EPA Method: 1664A
Container: One Liter Glass Bottle (Amber Color)
Preservative: Hydrochloric Acid (HCl)

Procedure:

- Put on rubber gloves
- Clean and purge the sampling point
- Ensure that the sample bottle is labeled correctly.
- Hold the bottle away from your face and slowly fill the bottle all the way to the neck.
- Write down on the label (with a pen) the time and date it was sampled
- Fill out the Chain of Custody Form (with a pen) for Oil and Grease. Write down the temperature of the sample under remarks
- Keep refrigerated or use ice cubes/Blue ice.
- Sign in "Relinquished By" on the Chain before handing over to boat.

Exhibit 5. DCOR, LLC's oil and grease sampling and handling SOPs. Note that these SOPs do not include information to ensure proper sample collection, preservation, and hold times. They also do not clearly describe the exact sample location (e.g., "Discharge 002") or discuss type of sample as "grab" or "composite".